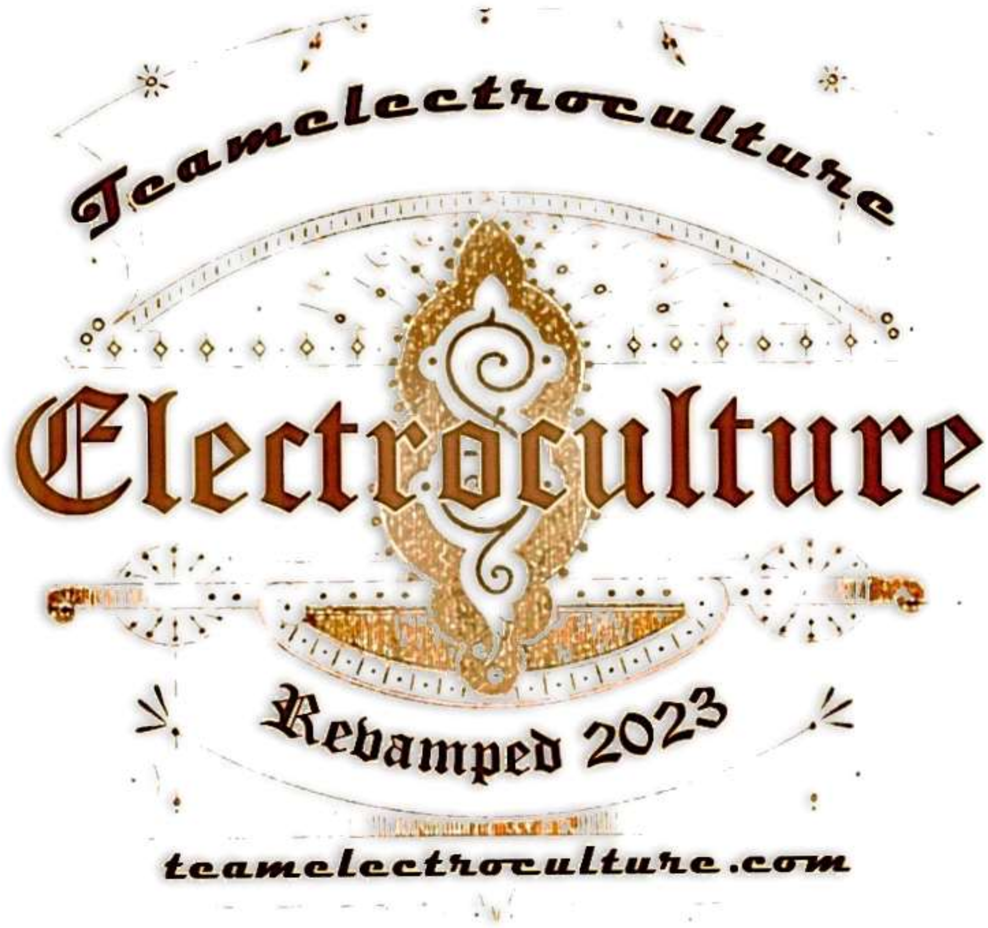
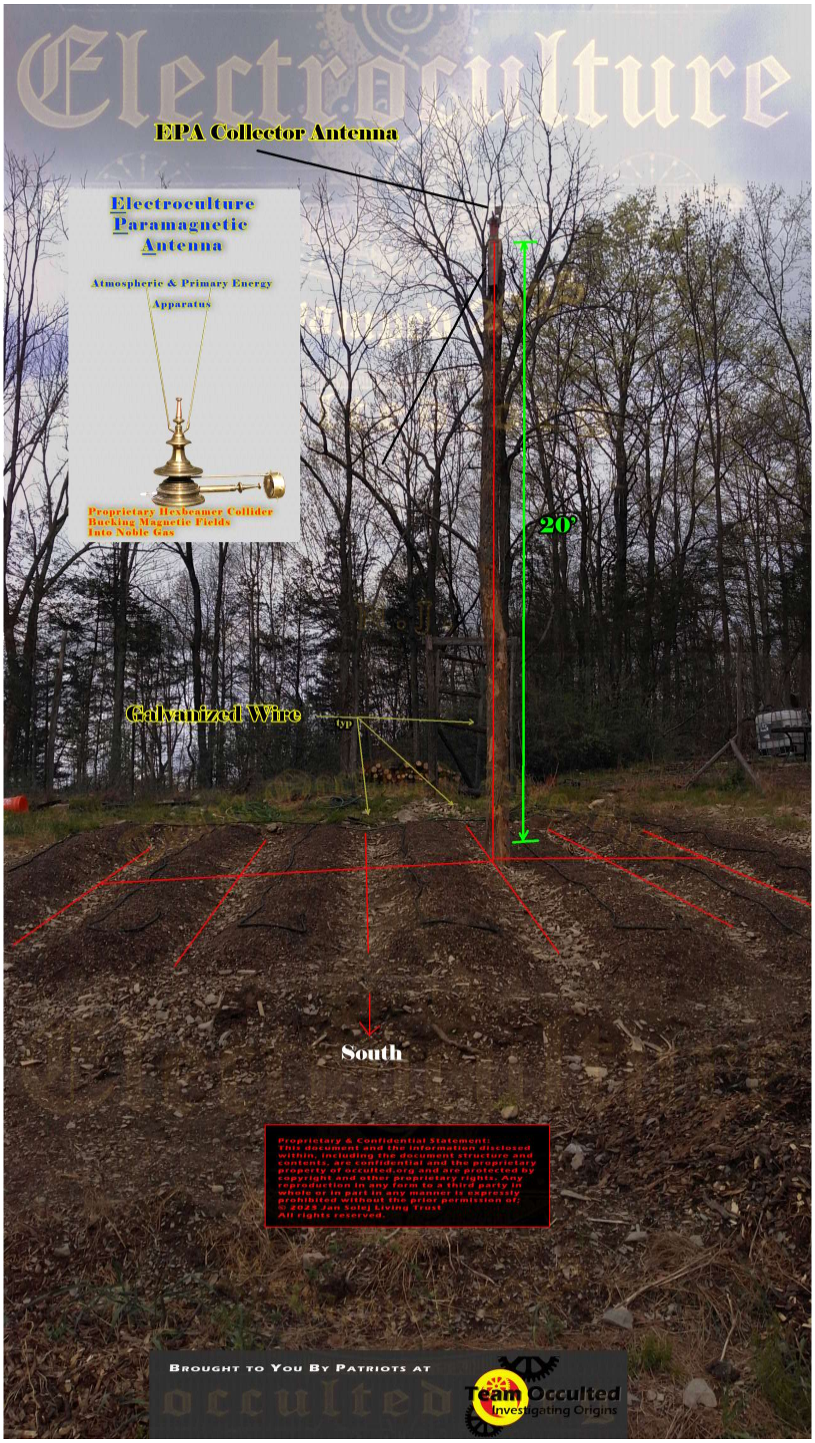
Electroculture Revamped 2023
Toleo lililorekebishwa





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Abstract: Kutumia fomula ya hatua tatu ya Trivium, Electroculture itachunguzwa, data zilizokusanywa, ufumbuzi wa rika uliopitiwa, na kwa matumaini yoyote, msomaji aliyeelimika juu ya dhana. Waraka huu una habari muhimu lakini ni mbali na karatasi sahihi ya utafiti. Hakuna meza ya yaliyomo, index, au glossary. Kutumia teknolojia iliyothibitishwa, mwandishi anatarajia kumhamasisha msomaji kutafuta ukweli kwa nini teknolojia hiyo itafunikwa na kuhifadhiwa kutoka kwa umma.

> ***“Yeye anayeamuru bahari ana amri ya kila kitu."***
>
> *-Themistocles (/θəˈmɪstəkliːz/; Greek: Θεμιστοκλῆς; c. 524 – c. 459 BC*

I. SARUFI

Ya 5 sababu kwa ELECTROCULTURE

Nani = Nollet / Bertholon / Lenstrom / Christofleau / Ufaransa * / Lakhovsky / Schauberger Wachangiaji wa Msingi
/Cooke /Feynman
Nini = Kutumia umeme wa anga <--- Ona Richard P. Feynman
Wakati = Marejeo ya 1700; mwandishi anakisia mapema sana; 1747 - Jean Antoine Nollet
Ambapo = Marekani, Uingereza, Denmark, Uholanzi, Uswisi, Ubelgiji, Uswidi - duniani kote
Kwa nini = Mbolea udongo na malipo ya maji na zaidi!

* https://www.khi.fi.it/en/forschung/4a-laboratory/2019-20/carlotta-castellani-plants-as-inventors.php

Ni nini kilimo cha umeme sio.

- Matumizi ya Umeme wa Kawaida katika matumizi katika udongo au hewa DC au AC, hiyo ni umeme tu.
- Inasaidiwa na Serikali, Pharma Kubwa, Vyombo vya Habari vya Mass, Academia
- Jipya, si jipya

Kumbuka: Hakuna picha au mawazo yoyote hapa ni AI iliyoundwa, hakuna algorithm ya AI iliyotumika katika sehemu yoyote ya hati hii.

Utangulizi

Katika safari yetu kuchimba kupitia historia, tulijikwaa kwenye makala inayoonyesha mazao yaliyovunwa ya uwiano wa gargantuan. Hii iliwekwa kwenye folda na picha elfu, maelezo juu ya utafiti, na hatimaye kupotea katika tafsiri. Hatimaye, baada ya miaka mingi ya uvumbuzi mdogo juu ya mambo ya awali ya teknolojia ilianza kujitokeza ambayo sasa inaweza kuwasilishwa kwa wasomaji wa kuuliza.

Mikono ndani ya udongo, mwandishi sasa alikuwa na historia ambayo kupeleka fantasies yoyote ya mazao ya kukua ambayo kwa uwiano wa epic. Wazo la kukua mbegu moja, kinyume na safu nzima, na kutimiza mavuno ya safu nzima, sasa inaweza kuburudishwa wakati uchunguzi unazidi kuwa Utafiti na Maendeleo. Mfano wa pili ni katika kazi ambazo zitajumuisha vifaa vya msingi vya nishati ya msingi, kubadilisha uwanja wa kucheza kwa kiasi kikubwa kama kifaa ni patent ya kipekee inayosubiri muundo wa mwandishi. Hii itaruhusu haki kamili za patent kwa jumla ya kifaa kwani imebadilishwa kabisa na kusasishwa kutoka kwa muundo wake wa awali na Christofleau. Vyama vinahimizwa kukaa tuned kwa mavuno ya bustani mwaka huu, ili kujihakikishia kiwango chao cha riba. Pia, kumbuka kwamba watu ambao huja na uvumbuzi ambao ni kinyume na mfumo wa kudhibiti huwa na kutoweka, hivyo kama hii hits dhana TV sanduku habari mimi ni kuwa roho.

Msukumo wangu wa kuandika makala hii ni kuwakemea waongo na wadanganyifu wa ulimwengu huu ambao wanadhibiti taasisi zetu na sauti za mamlaka ambazo mtu wa kawaida anageuka kuwa habari inayokubalika kwa kawaida na kuthibitishwa. Hati hii ni uthibitisho wa njama dhidi ya ubinadamu na wachache ambao wameamua hatustahili uhuru, uhuru, au uzima wa milele.
The figures in this world whom have asserted themselves as authorities over the people, are part of a ponzi scheme orchestrated since the very beginning of our civilization by our progenitors. The two sided system which incorrectly polarizes humans against each other, can still be rectified and right sided by simply exiting the false system of reality promulgated by false teachers who aim to enslave humans.

Hatuhitaji mifumo ya kati ya nguvu, udhibiti, au afya kwani yote yaliyomo ndani ya kiumbe hai na mimea ndani ya jirani yetu ya karibu. Angalia mtandao na jinsi Microsoft ilivyopanga teknolojia zao za mitandao karibu na Saraka ya Active na udhibiti wa kati kabisa kutoka kwa chanzo kimoja. Msomi Bill Gates hakubuni chochote, yeye ni mrithi tu wa historia ya damu ya ukatili dhidi ya ubinadamu. Wote giants silicon ni tu proxies, kutumika na mfumo wa wanyama. Hadithi hizi ndefu za watoto kuanzia katika karakana na kuunda monopolies nzima ya mifumo ya kudhibiti ni ya uwongo kama uongo wengine waliotufundisha shuleni.

Biblia yao takatifu ya KJV inapiga kelele katika ukweli wa kishirikina, ikihitaji mbinu za kusimbua ili kupokea ujumbe wa kweli uliosimbwa tu kwa waanzishaji. Mfumo mwingine tu wa kudhibiti wa kutumia uongo uliochanganywa na ukweli ili usurp chanzo cha uumbaji kutoka kwa hatua yake ya kweli, dipole. Mwandishi huyu anahimiza msomaji kutikiswa ndani na nembo * za ukweli, ambazo hazihitaji imani kama dini, ni ya milele na inaendelea bila hitaji la kukiri kwetu.

Ni wakati tu umati unapotambua upeo wa udanganyifu, ndipo tunaweza kuanza kutawanyika kwa mifumo ya udanganyifu, serikali ya udanganyifu, na kurudi kwenye utaratibu wa usawa wa sheria ya asili. Mabadiliko haya huanza na kila mtu amesimama imara kama kiongozi kwa mfano, bila kuhitaji chochote kutoka kwa oligarchy ya ushirika. Usihitaji maduka, hauitaji bidhaa za watumiaji, hauitaji uwepo wa nyenzo bandia. Kila kitu tunachohitaji ni sawa katika mioyo yetu na jirani zetu kwa suala la rasilimali za asili zinazohitajika kwa riziki ya usawa.

Join the awakening of another golden era in human enlightment, a true era of inclusion for all life to the same degree of grace and respectability. The beast system is already failing, that is why they are expediting their beast control systems of digital currency, mandated eugenics (vaccines). This is not a new agenda, it has been in place and forced on the population since inception. The author hopes his message to fall on the ears of friends and neighbors to encourage them to seek the truth outside of the confines of their TeleVision programming.

[Neno televisheni linatokana na Kigiriki cha Kaleτῆλε (tele) 'mbali', na Latin visio 'mbele']

Wanapaswa kuitwa TV; Macho ya nyoka iliyoundwa ili kukufanya uwe mtumwa anayedhibitiwa na akili. Kuweka unataka mambo yote mapya kila biashara na kupendekeza kuuza induce watumiaji kununua, kununua, kununua!

***** Asili ya neno Nembo ikawa neno la kiufundi katika falsafa ya Magharibi kuanzia na Heraclitus (c. 535 - c. 475 KK), ambaye alitumia neno kwa kanuni ya utaratibu na maarifa. Wanafalsafa wa Ugiriki ya Kale walitumia neno hilo kwa njia tofauti. Sophists walitumia neno hilo kumaanisha mazungumzo. Aristotle alitumia neno hilo kutaja "mazungumzo ya busara" au "hoja" katika uwanja wa maneno, na alichukulia kuwa moja ya njia tatu za ushawishi pamoja na ethos na pathos. Wanafalsafa wa Pyrrhonist walitumia neno hilo kutaja maelezo ya kiimani ya mambo yasiyo ya dhahiri. Stoics alizungumza juu ya nembo spermatikos (kanuni ya generative ya Ulimwengu) ambayo inaonyesha dhana zinazohusiana katika Neoplatonism. Ndani ya Uyahudi wa Hellenistic, Philo (c. 20 KK - c. 50 AD) iliunganisha neno hilo katika falsafa ya Kiyahudi. Philo alitofautisha kati ya nembo za prophorikos ("neno lililotamkwa") na nembo endiathetos ("neno linalobaki ndani").

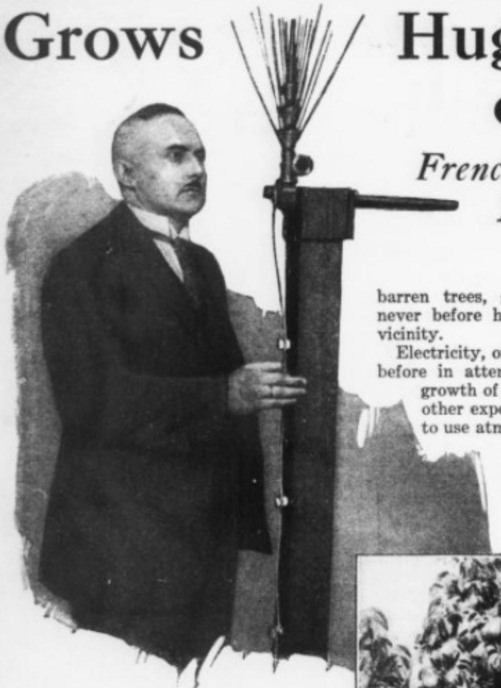
Injili ya Yohana inabainisha Nembo za Kikristo, ambazo kwa njia yake vitu vyote vinafanywa, kama Mungu (theos), na zaidi hutambua Yesu Kristo kama Nembo za mwili. Watafsiri wa awali wa Agano Jipya la Kigiriki, kama vile Jerome (katika karne ya 4 BK), walifadhaika na kutotosha kwa neno lolote la Kilatini ili kufikisha maana ya neno nembo kama ilivyotumika kuelezea Yesu Kristo katika Injili ya Yohana. Matumizi ya Biblia ya Vulgate ya principio erat verbum kwa hivyo ilizuiliwa kutumia (labda haitoshi) nomino ya nomino kwa "neno"; baadaye tafsiri za lugha ya Kiroma zilikuwa na faida ya nomino kama le Verbe kwa Kifaransa. Watafsiri wa mageuzi walichukua njia nyingine. Martin Luther alikataa Zeitwort (verb) kwa ajili ya Wort (neno), kwa mfano, ingawa baadaye wachambuzi mara kwa mara waligeuka kwa matumizi ya nguvu zaidi yanayohusisha neno hai kama inavyotumiwa na Jerome na Augustine. Neno hilo pia linatumika katika Sufism, na saikolojia ya uchambuzi ya Carl Jung.

Licha ya tafsiri ya kawaida kama "neno", nembo hazitumiwi kwa neno kwa maana ya kisarufi-kwa hiyo, neno lexis (λέξις, léxis) lilitumika. Hata hivyo, nembo zote mbili na lexis zinatokana na kitenzi kimoja légō (λέγω), maana yake "(I) hesabu, kuwaambia, sema, sema".

Grows Huge Crops with Aid of Electricity

French Wizard Discovers Amazing New Method of Farming

By Alfred Gradenwitz



A Modern Magic Wand

G. Fritzsche, German scientist, with experimental apparatus patterned after Christofloreau's invention for speeding the growth of plants by means of electricity drawn from the air, the earth, and the sun. The spiked arrangement at the top is an antenna that collects atmospheric electricity. The metal pointer on the pole utilizes the flow of terrestrial magnetism. In the center of the antenna is a thermocouple, which converts the sun's heat into electric current. All the electricity gathered by these processes is led into the ground by the wire shown at side of post

A POLICE magistrate investigating the strange disappearance of a man in Brittany, France, not long ago, received an odd letter from a peasant in the little Norman hamlet of La-Queue-les-Yvelines. The missing man had been murdered, the peasant wrote, and his body had been buried on the farm of Justin Christofloreau, who was described by the writer as a "servant of Satan."

Following the clue, the magistrate visited Christofloreau's farm. He found no body; yet the result of his call was startling. He found that Christofloreau was exactly what his superstitious neighbors had declared him to be—a wizard. His wizardry, however, was not of the malignant kind, but entirely practical and based on scientific principles. For this obscure French peasant has developed a new process of agriculture.

He is utilizing the magnetism of the earth, the electricity of the air, and electricity from the heat of the sun by ingenious apparatus to speed the growth of his plants. And he has accelerated the growth of normal plants, rejuvenated barren trees, grown crops such as never before have been seen in the vicinity.

Electricity, of course, has been used before in attempts to stimulate the growth of plants. Also, although other experimenters have sought to use atmospheric electricity for the purpose, their results have been inconclusive, possibly because of the neglect of important factors such as the flux of magnetism in the earth.

Grown by Electricity

The pear tree above had not borne fruit for years, until stimulated by Christofloreau's electrical apparatus. The strawberries at the left, grown electrically, are twice as large as ordinary berries

Terrestrial magnetism long has been believed to exert a stimulating effect on organic life. Thus, you may have heard it said that many persons sleep most soundly in a bed that points from north to south, with the foot to the south. For this reason Christofloreau has placed his apparatus in a north-south direction.

His apparatus consists of a number of 25-foot wooden poles, sunk in the ground. On the top of each pole is a metal pointer directed to the south to take all possible advantage of terrestrial currents. Each pole contains an antenna, designed to gather atmospheric electricity.

There is also a metal cylinder of copper and zinc strips soldered together, which converts the heat of the sun into electric current through the thermocouple principle.

It long has been known that when two metals of different degrees of heat conductivity are joined and subjected to heat, an electric current is generated. Christofloreau, however, makes use of this principle in a highly ingenious manner. For, in addition to the current generated by the apparatus itself, a similar effect is obtained between the walls of the cylinder and a set of rotating vanes outside, the latter cooling the exterior of the cylinder while the interior remains relatively warm.

All of the electromagnetic energy collected and generated by the apparatus, from the sun, the air, and the earth, is led to the ground by galvanized-iron wires, which extend down the poles. The poles are set about 10 feet apart and the wires from them pass through the ground for about 1000 yards.

According to Christofloreau, the accumulated electricity that reaches the earth destroys harmful parasites, at the same time fertilizing the earth by promoting beneficial chemical processes.

Clover Seven Feet High

Justin Christofloreau, the French farmer-wizard, holding stalks of clover which, by his remarkable method, grew seven feet high

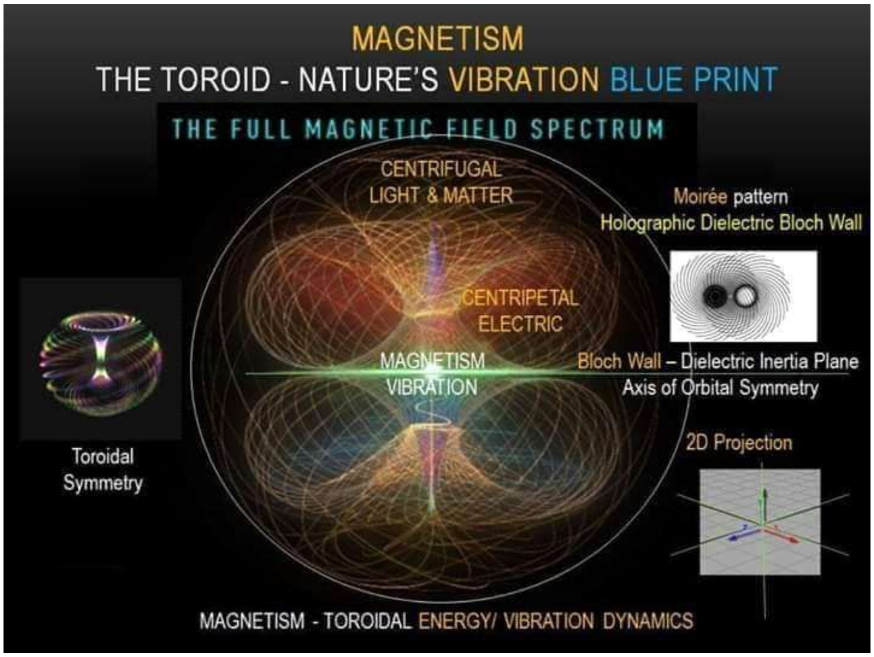
Njia za kawaida za kilimo cha umeme:

- Coil ya Lakhovsky / Spiral
- Electroculture Paramagnetic Antenna™ <---- Trademark 04/20/2023
- Muundo wa piramidi ya Golden Ratio

"Chini ya nukuu kutoka 'Ulimwengu wa Occult' Na Alfred percy Sinnett itarejelewa kupitia hati, tafadhali soma kwa uangalifu na uelewe habari iliyotolewa."

"Waganga wa kienyeji wamekuwa mbio mbali na kipindi cha awali kuliko tunavyoweza kuelewa—sio jamii tofauti kimwili, sio rangi ya sare kimwili kabisa, wala taifa kwa maana yoyote ya neno, lakini ushirika unaoendelea wa watu wenye akili ya juu wanaohusishwa pamoja na dhamana yenye nguvu kuliko tie nyingine yoyote ambayo wanadamu wana uzoefu, na kuendelea na mwendelezo kamili wa kusudi masomo na mila na siri za maendeleo ya kibinafsi walizopewa na watangulizi wao. Wakati huu wote mkondo wa ustaarabu, juu ya mawimbi ya kwanza ambayo utamaduni wa Ulaya ya kisasa unaelea, imekuwa kabisa na kupuuza kabisa utafiti mmoja ambao wachawi wamehusika tu. Kinachoshangaza ni kwamba mistari miwili ya ustaarabu 'imegawanyika hadi sasa hivi kwamba aina zao sasa ni tofauti kabisa na kila mmoja."

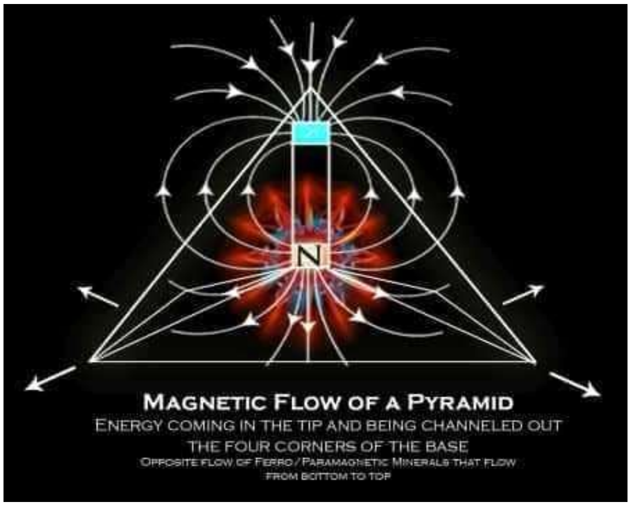
II.MANTIKI


MAGNETISM
THE TOROID - NATURE'S VIBRATION BLUE PRINT
THE FULL MAGNETIC FIELD SPECTRUM
CENTRIFUGAL
LIGHT & MATTER
Moirée pattern
Holographic Dielectric Bloch Wall
CENTRIPETAL
ELECTRIC
MAGNETISM
VIBRATION
Bloch Wall – Dielectric Inertia Plane
Axis of Orbital Symmetry
Toroidal
Symmetry
2D Projection
MAGNETISM - TOROIDAL ENERGY/ VIBRATION DYNAMICS

"Maisha yote yana siri yake katika dipolarity. Bila nguzo tofauti hakuwezi kuwa na kivutio, na hakuna kufukuza. Bila mvuto na kufukuza hakuwezi kuwa na harakati, na bila ya mwisho, hakuna maisha. Mwanga unaita giza, kwa sababu bila giza haitakuwa na maana. Mabadiliko ya joto na baridi, ya mchana na usiku pia ni muhimu zaidi kwa sayari yetu. Wakati upande mmoja wa dunia ni baridi, upande wake mwingine ni kupata joto. Tofauti hizi za joto hutoa flux ya mara kwa mara ambayo husababisha mzunguko wa ond kama inavyotokea na mbele za hewa ya moto na baridi ambayo mkutano wake husababisha vimbunga na vimbunga. Kuna tofauti hata katika uzito wa dunia, kwa sababu kwa upande wake wa joto ongezeko la uzito ni kamili na upande wa baridi maalum. Hii, pamoja na vikosi vya sumaku, hutoa harakati za mzunguko zinazopungua. Tofauti za joto hufanya shinikizo la mara kwa mara ambalo huweka umma katika mwendo kama inataka fidia.

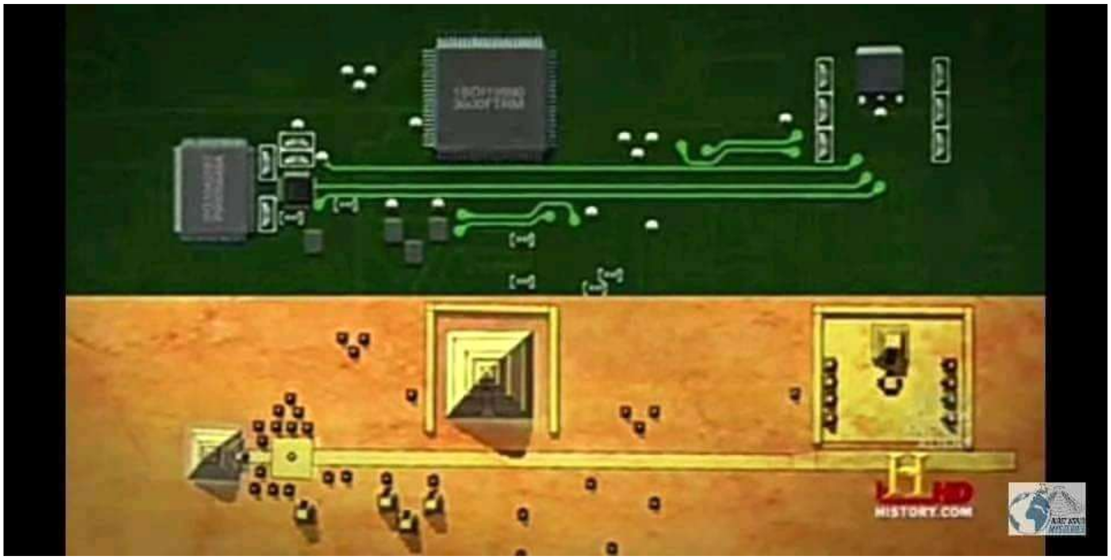
Mwenzake wa joto ni baridi; ya hasi - chanya;"

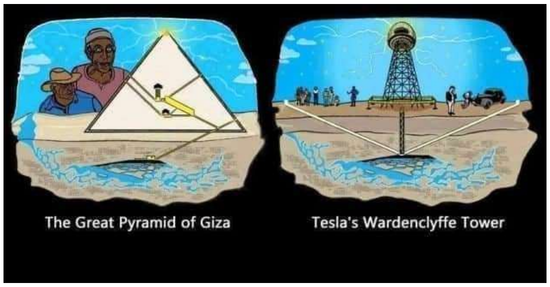
IMPLOSION INSTEAD OF EXPLOSION
Viktor Schauberger and his Discoveries
By Leopold Brandstatter
The Natural Solution to the Energy Problem Through Diamagnetism and Etheric Forces, Second Edition, 1955


N
MAGNETIC FLOW OF A PYRAMID
ENERGY COMING IN THE TIP AND BEING CHANNELED OUT
THE FOUR CORNERS OF THE BASE
OPPOSITE FLOW OF FERRO / PARAMAGNETIC MINERALS THAT FLOW
FROM BOTTOM TO TOP

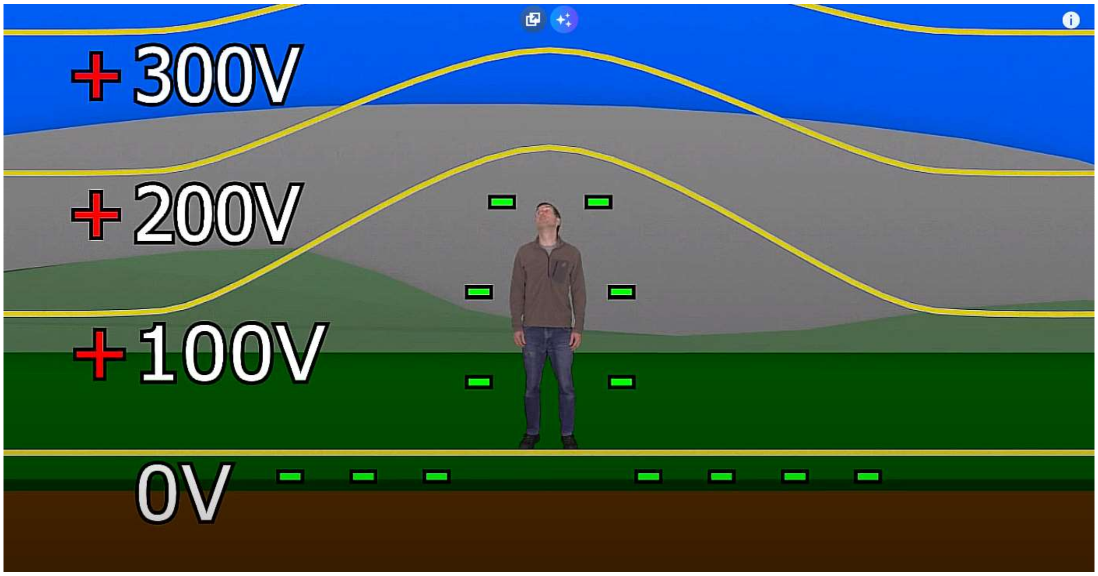
Miundo ya piramidi hutoa mkusanyiko mkubwa na pointi za maambukizi kwa nishati ya anga na aetheric. Muundo wao unapozingatia fomula ya uwiano wa dhahabu ya zamani, ni ya asili ya paramagnetic na yenye ufanisi sana kwa udanganyifu wa shamba la EM. Teknolojia, sayansi na hesabu zimefunikwa kwenye wavuti yetu na ziko kwenye ukurasa wao wenyewe http://occulted.org/occulted-pyramid-builders/ ambayo inaelezea mada kwa kiasi fulani.

Haionekani kuwa muundo wa piramidi utakuwa sehemu ya majaribio ya miaka hii ya R&D, na mwandishi anatumai hati hiyo inahamasisha wasomaji kufuata kazi hii na kuripoti juu ya matokeo na Timu ya Occulted. Kwa kuwa haitakuwa sehemu ya utafiti wa miaka hii, kiunga kilichotolewa hapo juu kitakuwa kiwango cha chanjo juu ya suala hili kwa sasa.





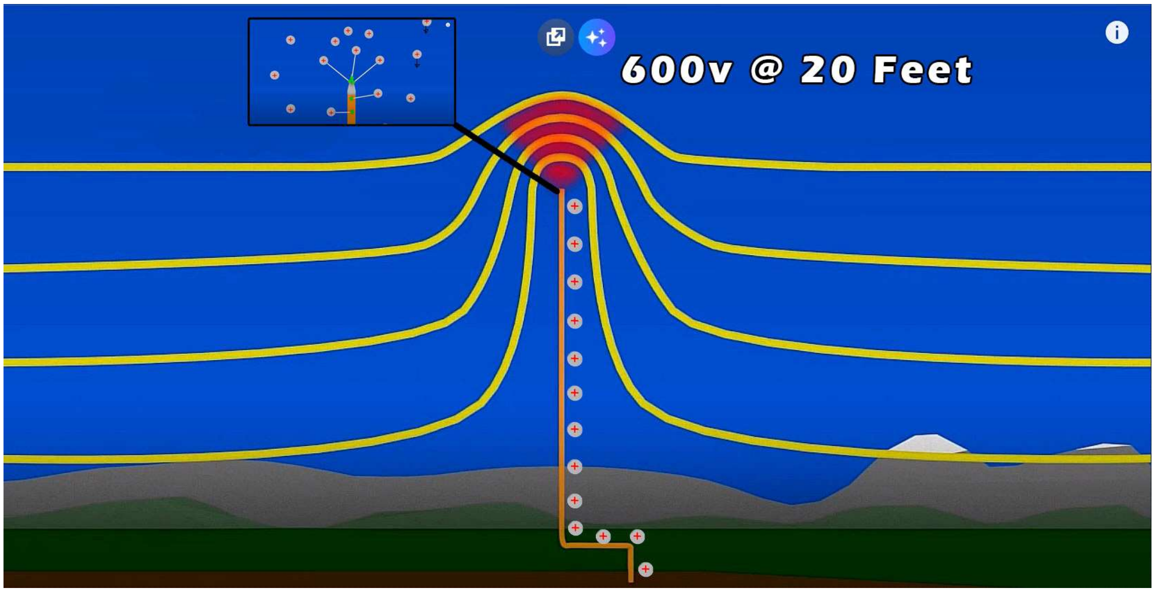
Atmospheric Electricity
(Umeme wa anga)



E = 100 V/M ona Dr. Feynmans Lectures chini katika makala*

The PAE or EPA (**P**aramagnetic **A**ntenna for **E**lectroculture) anakaa kwenye 6.1 Meters (20') = 600V

Volts ni kama shinikizo ambalo linasukuma maji kupitia bomba, katika kesi hii bomba ni ndogo sana, kwa hivyo shinikizo kimsingi linabaki ndani ya kuonekana. Kuna mkondo dhaifu wa ions za anga zinazohamia katika uwanja wa umeme wa anga, kuhusu picoamperes 2 kwa mita ya mraba, na hewa ni dhaifu kwa sababu ya uwepo wa ions hizi za anga. Pamoja na mtoza antenna ya PAE, kutoa kwako njia hii ya hila hadi ardhini ambapo inakusanya kando ya kebo ya mabati inayotoa kichocheo muhimu kwa udongo, ambayo hutafsiri kwa chakula kingi kwa mimea, inapatikana kwa wingi.



Mtiririko wa elektroni kwenye udongo unaolisha bakteria ambao kwa upande wake hubadilisha elektroni kuwa nitrojeni ya udongo. Hii mimea hulisha katika usambazaji wa mara kwa mara kuruhusu mavuno ya moyo. gig ni juu ya NWO, hatuhitaji chochote kutoka kwa uhaba wako wa rasilimali za asili. Tuna kila kitu tunachohitaji hapa.

Richard P. Feynman; Mwanafizikia maarufu, mwalimu, juu ya Umeme wa Anga;

9

Electricity in the Atmosphere

9–1 The electric potential gradient of the atmosphere

9–2 Electric currents in the atmosphere

9–3 Origin of the atmospheric currents

9–4 Thunderstorms

9–5 The mechanism of charge separation

9–6 Lightning

Reference: Chalmers, J. Alan, *Atmospheric Electricity*, Pergamon Press, London (1957).

9–1 The electric potential gradient of the amosphere

On an ordinary day over flat desert country, or over the sea, as one goes upward from the surface of the ground the electric potential increases by about 100 volts per meter. Thus there is a vertical electric field ***E*** of 100 volts/m in the air. The sign of the field corresponds to a negative charge on the earth's surface. This means that outdoors the potential at the height of your nose is 200 volts higher than the potential at your feet! You might ask: "Why don't we just stick a pair of electrodes out in the air one meter apart and use the 100 volts to power our electric lights?" Or you might wonder: "If there is *really* a potential difference of 200 volts between my nose and my feet, why is it I don't get a shock when I go out into the street?"

We will answer the second question first. Your body is a relatively good conductor. If you are in contact with the ground, you and the ground will tend to make one equipotential surface. Ordinarily, the equipotentials are parallel to the surface, as shown in Fig. 9–1(a), but when you are there, the equipotentials are distorted, and the field looks somewhat as shown in Fig. 9–1(b). So you still have very nearly zero potential difference between your head and your feet. There are charges that come from the earth to your head, changing the field. Some of them may be discharged by ions collected from the air, but the current of these is very small because air is a poor conductor.

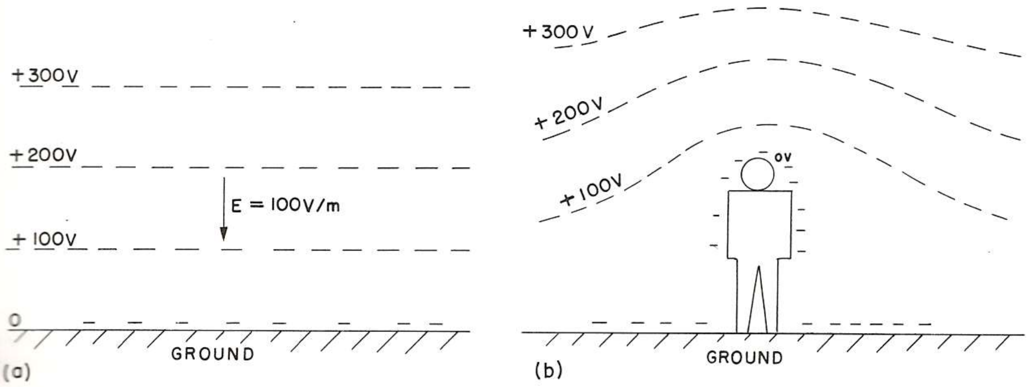


Fig. 9–1. (a) The potential distribution above the earth. (b) The potential distribution near a man in an open flat place.

How can we measure such a field if the field is changed by putting something there? There are several ways. One way is to place an insulated conductor at some distance above the ground and leave it there until it is at the same potential as the air. If we leave it long enough, the very small conductivity in the air will let the charges leak off (or onto) the conductor until it comes to the potential at its level. Then we can bring it back to the ground, and measure the shift of its potential as we do so. A faster way is to let the conductor be a bucket of water with a small leak. As the water drops out, it carries away any excess charges and the bucket will approach the same potential as the air. (The charges, as you know, reside on the surface, and as the drops come off "pieces of surface" break off.) We can measure the potential of the bucket with an electrometer.

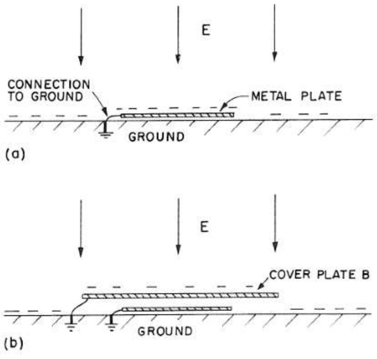


Fig. 9–2. (a) A grounded metal plate will have the same surface charge as the earth. (b) If the plate is covered with a grounded conductor it will have no surface charge.

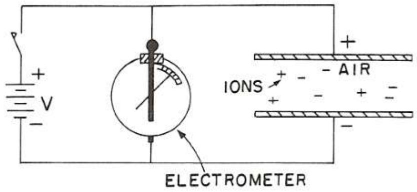


Fig. 9–3. Measuring the conductivity of air due to the motion of ions.

There is another way to directly measure the potential *gradient*. Since there is an electric field, there is a surface charge on the earth ($\sigma = \epsilon_0 E$). If we place a flat metal plate at the earth's surface and ground it, negative charges appear on it (Fig. 9–2a). If this plate is now covered by another grounded conducting cover *B*, the charges will appear on the cover, and there will be no charges on the original plate *A*. If we measure the charge that flows from plate *A* to the ground (by, say, a galvanometer in the grounding wire) as we cover it, we can find the surface charge density that was there, and therefore also find the electric field.

Having suggested how we can measure the electric field in the atmosphere, we now continue our description of it. Measurements show, first of all, that the field continues to exist, but gets weaker, as one goes up to high altitudes. By about 50 kilometers, the field is very small, so most of the potential change (the integral of *E*) is at lower altitudes. The total potential difference from the surface of the earth to the top of the atmosphere is about 400,000 volts.

9–2 Electric currents in the atmosphere

Another thing that can be measured, in addition to the potential gradient, is the current in the atmosphere. The current density is small—about 10 micromicroamperes crosses each square meter parallel to the earth. The air is evidently not a perfect insulator, and because of this conductivity, a small current—caused by the electric field we have just been describing—passes from the sky down to the earth.

Why does the atmosphere have conductivity? Here and there among the air molecules there is an ion—a molecule of oxygen, say, which has acquired an extra electron, or perhaps lost one. These ions do not stay as single molecules; because of their electric field they usually accumulate a few other molecules around them. Each ion then becomes a little lump which, along with other lumps, drifts in the field—moving slowly upward or downward—making the observed current. Where do the *ions* come from? It was first guessed that the ions were produced by the radioactivity of the earth. (It was known that the radiation from radioactive materials would make air conducting by ionizing the air molecules.) Particles like β-rays coming out of the atomic nuclei are moving so fast that they tear electrons from the atoms, leaving ions behind. This would imply, of course, that if we were to go to higher altitudes, we should find less ionization, because the radioactivity is all in the dirt on the ground—in the traces of radium, uranium, potassium, etc.

To test this theory, some physicists carried an experiment up in balloons to measure the ionization of the air (Hess, in 1912) and discovered that the opposite was true—the ionization per unit volume *increased* with altitude! (The apparatus was like that of Fig. 9–3. The two plates were charged periodically to the potential *V*. Due to the conductivity of the air, the plates slowly discharged; the rate of discharge was measured with the electrometer.) This was a most mysterious result—the most dramatic finding in the entire history of atmospheric electricity. It was so dramatic, in fact, that it required a branching off of an entirely new subject—cosmic rays. Atmospheric electricity itself remained less dramatic. Ionization was evidently being produced by something from outside the earth; the investigation of this source led to the discovery of the cosmic rays. We will not discuss the subject of cosmic rays now, except to say that they maintain the supply of ions. Although the ions are being swept away all the time, new ones are being created by the cosmic-ray particles coming from the outside.

To be precise, we must say that besides the ions made of molecules, there are also other kinds of ions. Tiny pieces of dirt, like extremely fine bits of dust, float in the air and become charged. They are sometimes called "nuclei." For example, when a wave breaks in the sea, little bits of spray are thrown into the air. When one of these drops evaporates, it leaves an infinitesimal crystal of NaCl floating in the air. These tiny crystals can then pick up charges and become ions; they are called "large ions."

The small ions—those formed by cosmic rays—are the most mobile. Because they are so small, they move rapidly through the air—with a speed of about 1 cm/sec in a field of 100 volts/meter, or 1 volt/cm. The much bigger and heavier ions move much more slowly. It turns out that if there are many "nuclei," they will pick up the charges from the small ions. Then, since the "large ions" move so slowly in a field, the total conductivity is reduced. The conductivity of air, therefore, is quite variable, since it is very sensitive to the amount of "dirt" there is in it. There is much more of such dirt over land—where the winds can blow up dust or where man throws all kinds of pollution into the air—than there is over water. It is not surprising that from day to day, from moment to moment, from place to place, the conductivity near the earth's surface varies enormously. The voltage gradient observed at any particular place on the earth's surface also varies greatly because roughly the same current flows down from high altitudes in different places, and the varying conductivity near the earth results in a varying voltage gradient.

The conductivity of the air due to the drifting of ions also increases rapidly with altitude—for two reasons. First of all, the ionization from cosmic rays increases with altitude. Secondly, as the density of air goes down, the mean free path of the ions increases, so that they can travel farther in the electric field before they have a collision—resulting in a rapid increase of conductivity as one goes up.

Although the electric current-density in the air is only a few micromicroamperes per square meter, there are very many square meters on the earth's surface. The total electric current reaching the earth's surface at any time is very nearly constant at 1800 amperes. This current, of course, is "positive"—it carries plus charges to the earth. So we have a voltage supply of 400,000 volts with a current of 1800 amperes—a power of 700 megawatts!

With such a large current coming down, the negative charge on the earth should soon be discharged. In fact, it should take only about half an hour to discharge the entire earth. But the atmospheric electric field has already lasted more than a half-hour since its discovery. How is it maintained? What maintains the voltage? And between what and the earth? There are many questions.

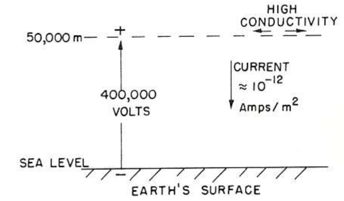


Fig. 9–4. Typical electrical conditions in a clear atmosphere.

The earth is negative, and the potential in the air is positive. If you go high enough, the conductivity is so great that horizontally there is no more chance for voltage variations. The air, for the scale of times that we are talking about, becomes effectively a conductor. This occurs at a height in the neighborhood of 50 kilometers. This is not as high as what is called the "ionosphere," in which there are very large numbers of ions produced by photoelectricity from the sun. Nevertheless, for our discussions of atmospheric electricity, the air becomes sufficiently conductive at about 50 kilometers that we can imagine that there is practically a perfect conducting surface at this height, from which the currents come down. Our picture of the situation is shown in Fig. 9–4. The problem is: How is the positive charge maintained there? How is it pumped back? Because if it comes down to the earth, it has to be pumped back somehow. That was one of the greatest puzzles of atmospheric electricity for quite a while.

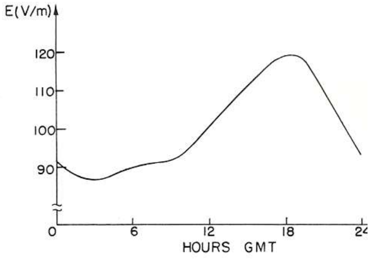


Fig. 9–5. The average daily variation of the atmospheric potential gradien on a clear day over the oceans; referre to Greenwich time.

Each piece of information we can get should give a clue or, at least, tell you something about it. Here is an interesting phenomenon: If we measure the current (which is more stable than the potential gradient) over the sea, for instance, or in careful conditions, and average very carefully so that we get rid of the irregularities, we discover that there is still a daily variation. The average of many measurements over the oceans has a variation with time roughly as shown in Fig. 9–5. The current varies by about ±15 percent, and it is largest at 7:00 P.M. in London. The strange part of the thing is that no matter *where* you measure the current—in the Atlantic Ocean, the Pacific Ocean, or the Arctic Ocean—it is at its peak value when the clocks in *London* say 7:00 P.M.! All over the world the current is at its maximum at 7:00 P.M. London time and it is at a minimum at 4:00 A.M. London time. In other words, it depends upon the absolute time on the earth, *not* upon the local time at the place of observation. In one respect this is not mysterious; it checks with our idea that there is a very high conductivity laterally at the top, because that makes it impossible for the voltage difference from the ground to the top to vary locally. Any potential variations should be worldwide, as indeed they are. What we now know, therefore, is that the voltage at the "top" surface is dropping and rising by 15 percent with the absolute time on the earth.

9–3 Origin of the atmospheric currents

We must next talk about the source of the large negative currents which must be flowing from the "top" to the surface of the earth to keep charging it up negatively. Where are the batteries that do this? The "battery" is shown in Fig. 9–6. It is the thunderstorm and its lightning. It turns out that the bolts of lightning do not "discharge" the potential we have been talking about (as you might at first guess). Lightning storms carry *negative* charges to the earth. When a lightning bolt strikes, ten-to-one it brings down negative charges to the earth in large amounts. It is the thunderstorms throughout the world that are charging the earth with an average of 1800 amperes, which is then being discharged through regions of fair weather.

There are about 300 thunderstorms per day all over the earth, and we can think of them as batteries pumping the electricity to the upper layer and maintaining the voltage difference. Then take into account the geography of the earth—there are thunderstorms in the afternoon in Brazil, tropical thunderstorms in Africa, and so forth. People have made estimates of how much lightning is striking world-wide at any time, and perhaps needless to say, their estimates more or less agree with the voltage difference measurements: the total amount of thunderstorm activity is highest on the whole earth at about 7:00 P.M. in London. However, the thunderstorm estimates are very difficult to make and were made only *after* it was known that the variation should have occurred. These things are very difficult because we don't have enough observations on the seas and over all parts of the world to know the number of thunderstorms accurately. But those people who think they "do it right" obtain the result that there is a peak in the activity at 7:00 P.M. Greenwich Mean Time.

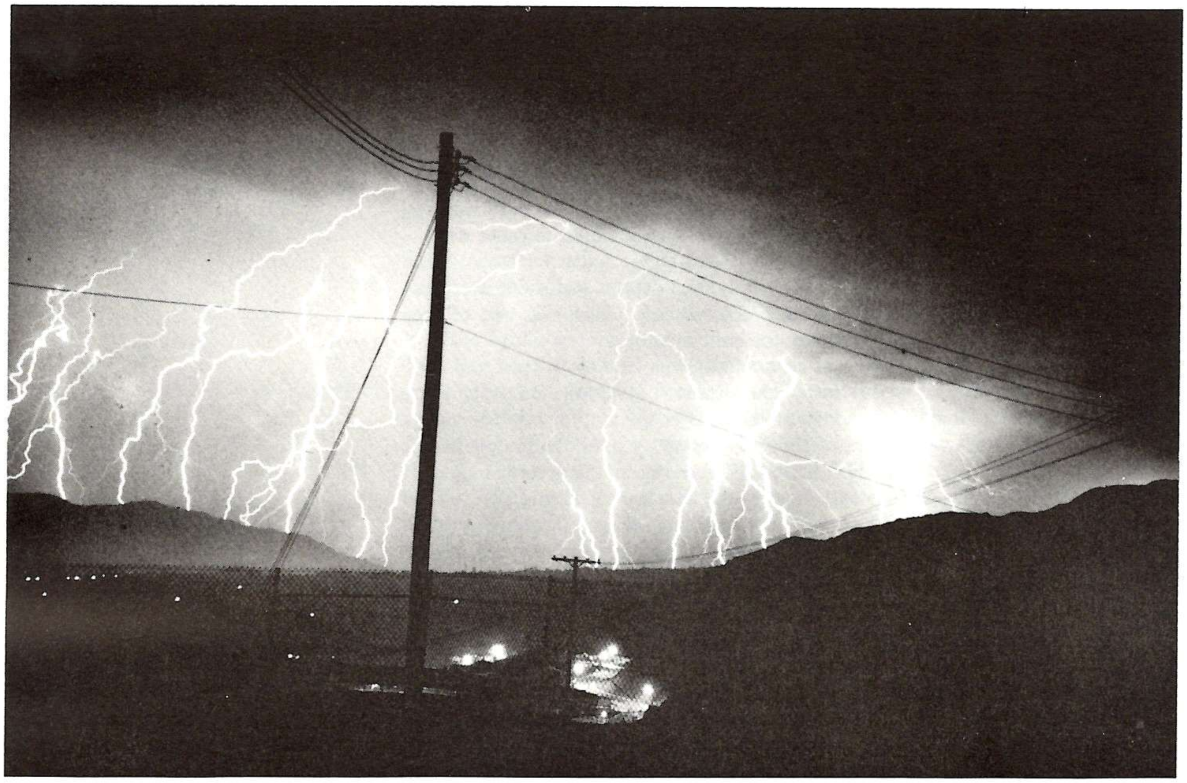


Fig. 9–6. The mechanism that generates the atmospheric electric field. [Photo by William L. Widmayer.]

In order to understand how these batteries work, we will look at a thunderstorm in detail. What is going on inside a thunderstorm? We will describe this insofar as it is known. As we get into this marvelous phenomenon of real nature—instead of the idealized spheres of perfect conductors inside of other spheres that we can solve so neatly—we discover that we don't know very much. Yet it is really quite exciting. Anyone who has been in a thunderstorm has enjoyed it, or has been frightened, or at least has had some emotion. And in those places in nature where we get an emotion, we find that there is generally a corresponding complexity and mystery about it. It is not going to be possible to describe exactly how a thunderstorm works, because we do not yet know very much. But we will try to describe a little bit about what happens.

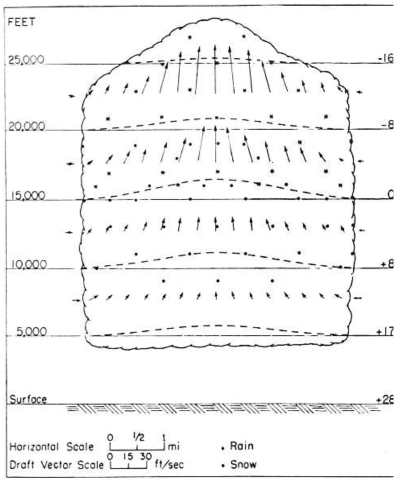


Fig. 9–7. A thunderstorm cell in the early stages of development. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

9–4 Thunderstorms

In the first place, an ordinary thunderstorm is made up of a number of "cells" fairly close together, but almost independent of each other. So it is best to analyze one cell at a time. By a "cell" we mean a region with a limit area in the horizontal direction in which all of the basic processes occur. Usually there are several cells side by side, and in each one about the same thing is happening, although perhaps with a different timing. Figure 9–7 indicates in an idealized fashion what such a cell looks like in the early stage of the thunderstorm. It turns out that in a certain place in the air, under certain conditions which we shall describe, there is a general rising of the air, with higher and higher velocities near the top. As the warm, moist air at the bottom rises, it cools and condenses. In the figure the little crosses indicate snow and the dots indicate rain, but because the updraft currents are great enough and the drops are small enough, the snow and rain do not come down at this stage. This is the beginning stage, and not the real thunderstorm yet—in the sense that we don't have anything happening at the ground. At the same time that the warm air rises, there is an entrainment of air from the sides—an important point which was neglected for many years. Thus it is not just the air from below which is rising, but also a certain amount of other air from the sides.

Why does the air rise like this? As you know, when you go up in altitude the air is colder. The *ground* is heated by the sun, and the re-radiation of heat to the sky comes from water vapor high in the atmosphere; so at high altitudes the air is cold—very cold—whereas lower down it is warm. You may say, "Then it's very simple. Warm air is lighter than cold; therefore the combination is mechanically unstable and the warm air rises." Of course, if the temperature is different at different heights, the air *is* unstable *thermodynamically*. Left to itself infinitely long, the air would all come to the same temperature. But it is not left to itself; the sun is always shining (during the day). So the problem is indeed not one of thermodynamic equilibrium, but of *mechanical* equilibrium. Suppose we plot—as in Fig. 9–8—the temperature of the air against height above the ground. In ordinary circumstances we would get a decrease along a curve like the one labeled (a); as the height goes up, the temperature goes down. How can the atmosphere be stable? Why doesn't the hot air below simply rise up into the cold air? The answer is this: if the air were to go up, its pressure would go down, and if we consider a particular parcel of air going up, it would be expanding adiabatically. (There would be no heat coming in or out because in the large dimensions considered here, there isn't time for much heat flow.) Thus the parcel of air would cool as it rises. Such an adiabatic process would give a temperature-height relationship like curve (b) in Fig. 9–8. Any air which rose from below would be *colder* than the environment it goes into. Thus there is no reason for the hot air below to rise; if it were to rise, it would cool to a lower temperature than the air already there, would be heavier than the air there, and would just want to come down again. On a good, bright day with very little humidity there is a certain rate at which the temperature in the atmosphere falls, and this rate is, in general, lower than the "maximum stable gradient," which is represented by curve (b). The air is in stable mechanical equilibrium.

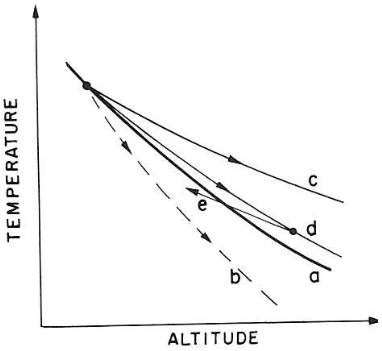


Fig. 9–8. Atmospheric temperature. (a) Static atmosphere; (b) adiabatic cooling of dry air; (c) adiabatic cooling of wet air; (d) wet air with some mixing of ambient air.

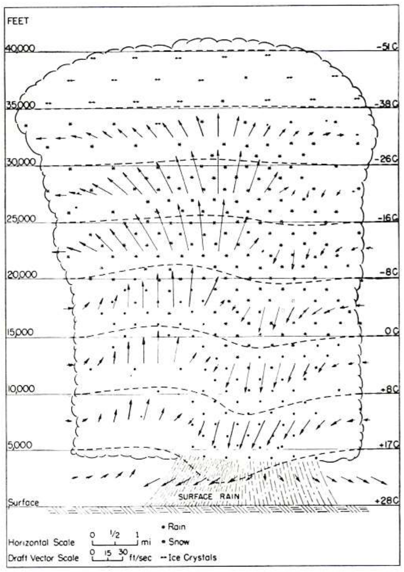


Fig. 9–9. A mature thunderstorm cell. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

On the other hand, if we think of a parcel of air that contains a lot of water vapor being carried up into the air, its adiabatic cooling curve will be different. As it expands and cools, the water vapor in it will condense, and the condensing water will liberate heat. Moist air, therefore, does not cool nearly as much as dry air does. So if air that is wetter than the average starts to rise, its temperature will follow a curve like (c) in Fig. 9–8. It will cool off somewhat, but will still be warmer than the surrounding air at the same level. If we have a region of warm moist air and something starts it rising, it will always find itself lighter and warmer than the air around it and will continue to rise until it gets to enormous heights. This is the machinery that makes the air in the thunderstorm cell rise.

For many years the thunderstorm cell was explained simply in this manner. But then measurements showed that the temperature of the cloud at different heights was not nearly as high as indicated by curve (c). The reason is that as the moist air "bubble" goes up, it entrains air from the environment and is cooled off by it. The temperature-versus-height curve looks more like curve (d), which is much closer to the original curve (a) than to curve (c).

After the convection just described gets under way, the cross section of a thunderstorm cell looks like Fig. 9–9. We have what is called a "mature" thunderstorm. There is a very rapid updraft which, in this stage, goes up to about 10,000 to 15,000 meters—sometimes even much higher. The thunderheads, with their condensation, climb way up out of the general cloud bank, carried by an updraft that is usually about 60 miles an hour. As the water vapor is carried up and condenses, it forms tiny drops which are rapidly cooled to temperatures below zero degrees. They should freeze, but do not freeze immediately—they are "supercooled." Water and other liquids will usually cool well below their freezing points before crystallizing if there are no "nuclei" present to start the crystallization process. Only if there is some small piece of material present, like a tiny crystal of NaCl, will the water drop freeze into a little piece of ice. Then the equilibrium is such that the water drops evaporate and the ice crystals grow. Thus at a certain point there is a rapid disappearance of the water and a rapid buildup of ice. Also, there may be direct collisions between the water drops and the ice—collisions in which the supercooled water becomes attached to the ice crystals, which causes it to suddenly crystallize. So at a certain point in the cloud expansion there is a rapid accumulation of large ice particles.

When the ice particles are heavy enough, they begin to fall through the rising air—they get too heavy to be supported any longer in the updraft. As they come down, they draw a little air with them and start a downdraft. And surprisingly enough, it is easy to see that once the downdraft is started, it will maintain itself. The air now drives itself down!

Notice that the curve (d) in Fig. 9–8 for the actual distribution of temperature in the cloud is not as steep as curve (c), which applies to wet air. So if we have wet air falling, its temperature will drop with the slope of curve (c) and will go *below* the temperature of the environment if it gets down far enough, as indicated by curve (e) in the figure. The moment it does that, it is denser than the environment and continues to fall rapidly. You say, "That is perpetual motion. First, you argue that the air should rise, and when you have it up there, you argue equally well that the air should fall." But it isn't perpetual motion. When the situation is unstable and the warm air should rise, then clearly something has to replace the warm air. It is equally true that cold air coming down would energetically replace the warm air, but you realize that what is coming down is *not* the original air. The early arguments, that had a particular cloud without entrainment going up and then coming down, had some kind of a puzzle. They needed the rain to maintain the downdraft—an argument which is hard to believe. As soon as you realize that there is a lot of original air mixed in with the rising air, the thermodynamic argument shows that there can be a descent of the cold air which was originally at some great height. This explains the picture of the active thunderstorm sketched in Fig. 9–9.

As the air comes down, rain begins to come out of the bottom of the thunderstorm. In addition, the relatively cold air spreads out when it arrives at the earth's surface. So just before the rain comes there is a certain little cold wind that gives us a forewarning of the coming storm. In the storm itself there are rapid and irregular gusts of air, there is an enormous turbulence in the cloud, and so on. But basically we have an updraft, then a downdraft—in general, a very complicated process.

The moment at which precipitation starts is the same moment that the large downdraft begins and is the same moment, in fact, when the electrical phenomena arise. Before we describe lightning, however, we can finish the story by looking at what happens to the thunderstorm cell after about one-half an hour to an hour. The cell looks as shown in Fig. 9–10. The updraft stops because there is no longer enough warm air to maintain it. The downward precipitation continues for a while, the last little bits of water come out, and things get quieter and quieter—although there are small ice crystals left way up in the air. Because the winds at very great altitude are in different directions, the top of the cloud usually spreads into an anvil shape. The cell comes to the end of its life.

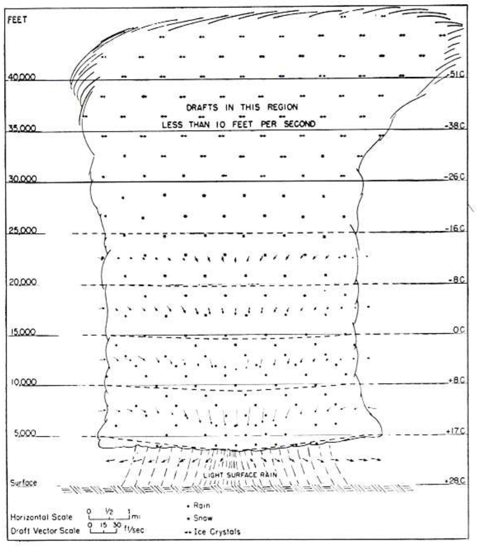


Fig. 9–10. The late phase of a thunderstorm cell. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

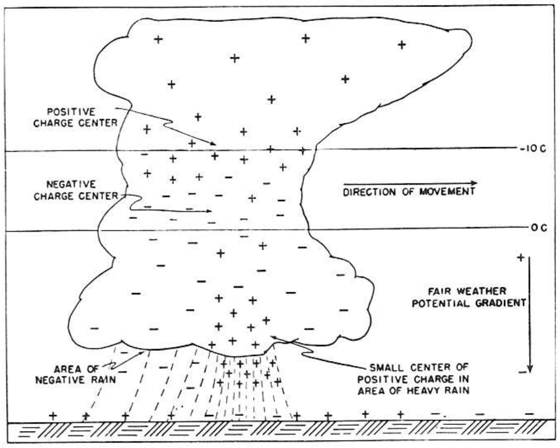


Fig. 9–11. The distribution of electrical charges in a mature thunderstorm cell. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

9–5 The mechanism of charge separation

We want now to discuss the most important aspect for our purposes—the development of the electrical charges. Experiments of various kinds—including flying airplanes through thunderstorms (the pilots who do this are brave men!)—tell us that the charge distribution in a thunderstorm cell is something like that shown in Fig. 9–11. The top of the thunderstorm has a positive charge, and the bottom a negative one—except for a small local region of positive charge in the bottom of the cloud, which has caused everybody a lot of worry. No one seems to know why it is there, how important it is—whether it is a secondary effect of the positive rain coming down, or whether it is an essential part of the machinery. Things would be much simpler if it weren't there. Anyway, the predominantly negative charge at the bottom and the positive charge at the top have the correct sign for the battery needed to drive the earth negative. The positive charges are 6 or 7 kilometers up in the air, where the temperature is about $-20°$C, whereas the negative charges are 3 or 4 kilometers high, where the temperature is between zero and $-10°$C.

The charge at the bottom of the cloud is large enough to produce potential differences of 20, or 30, or even 100 million volts between the cloud and the earth—much bigger than the 0.4 million volts from the "sky" to the ground in a clear atmosphere. These large voltages break down the air and create giant arc discharges. When the breakdown occurs the negative charges at the bottom of the thunderstorm are carried down to the earth in the lightning strokes.

Now we will describe in some detail the character of the lightning. First of all, there are large voltage differences around, so that the air breaks down. There are lightning strokes between one piece of a cloud and another piece of a cloud, or between one cloud and another cloud, or between a cloud and the earth. In each of the independent discharge flashes—the kind of lightning strokes you see—there are approximately 20 or 30 coulombs of charge brought down. One question is: How long does it take for the cloud to regenerate the 20 or 30 coulombs which are taken away by the lightning bolt? This can be seen by measuring, far from a cloud, the electric field produced by the cloud's dipole moment. In such measurements you see a sudden decrease in the field when the lightning strikes, and then an exponential return to the previous value with a time constant which is slightly different for different cases but which is in the neighborhood of 5 seconds. It takes a thunderstorm only 5 seconds after each lightning stroke to build its charge up again. That doesn't necessarily mean that another stroke is going to occur in exactly 5 seconds every time, because, of course, the geometry is changed, and so on. The strokes occur more or less irregularly, but the important point is that it takes about 5 seconds to recreate the original condition. Thus there are approximately 4 amperes of current in the generating machine of the thunderstorm. This means that any model made to explain how this storm generates its electricity must be one with plenty of juice—it must be a big, rapidly operating device.

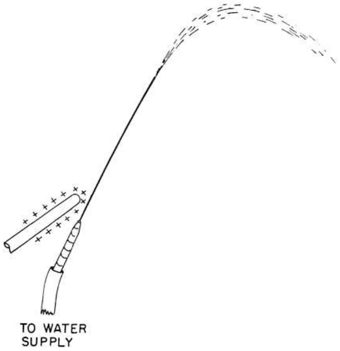


Fig. 9–12. A jet of water with an electric field near the nozzle.

Before we go further we shall consider something which is almost certainly completely irrelevant, but nevertheless interesting, because it does show the effect of an electric field on water drops. We say that it may be irrelevant because it relates to an experiment one can do in the laboratory with a stream of water to show the rather strong effects of the electric field on drops of water. In a thunderstorm there is no stream of water; there is a cloud of condensing ice and drops of water. So the question of the mechanisms at work in a thunderstorm is probably not at all related to what you can see in the simple experiment we will describe. If you take a small nozzle connected to a water faucet and direct it upward at a steep angle, as in Fig. 9–12, the water will come out in a fine stream that eventually breaks up into a spray of fine drops. If you now put an electric field across the stream at the nozzle (by bringing up a charged rod, for example), the form of the stream will change. With a weak electric field you will find that the stream breaks up into a smaller number of large-sized drops. But if you apply a stronger field, the stream breaks up into many, many fine drops—smaller than before.* With a weak electric field there is a tendency to inhibit the breakup of the stream into drops. With a stronger field, however, there is an increase in the tendency to separate into drops.

The explanation of these effects is probably the following. If we have the stream of water coming out of the nozzle and we put a small electric field across it one side of the water gets slightly positive and the other side gets slightly negative. Then, when the stream breaks, the drops on one side may be positive, and those on the other side may be negative. They will attract each other and will have a tendency to stick together more than they would have before—the stream doesn't break up as much. On the other hand, if the field is stronger, the charge in each one of the drops gets much larger, and there is a tendency for the charge *itself* to help break up the drops through their own repulsion. Each drop will break into many smaller ones, each carrying a charge, so that they are all repelled, and spread out so rapidly. So as we increase the field, the stream becomes more finely separated. The only point we wish to make is that in certain circumstances electric fields can have considerable influence on the drops. The exact machinery by which something happens in a thunderstorm is not at all known, and is not at all necessarily related to what we have just described. We have included it just so that you will appreciate the complexities that could come into play. In fact, nobody has a theory applicable to clouds based on that idea.

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* A handy way to observe the sizes of the drops is to let the stream fall on a large thin metal plate. The larger drops make a louder noise.

We would like to describe two theories which have been invented to account for the separation of the charges in a thunderstorm. All the theories involve the idea that there should be some charge on the precipitation particles and a different charge in the air. Then by the movement of the precipitation particles—the water or the ice—through the air there is a separation of electric charge. The only question is: How does the charging of the drops begin? One of the older theories is called the "breaking-drop" theory. Somebody discovered that if you have a drop of water that breaks into two pieces in a windstream, there is positive charge on the water and negative charge in the air. This breaking-drop theory has several disadvantages, among which the most serious is that the *sign* is wrong. Second, in the large number of temperate-zone thunderstorms which do exhibit lightning, the precipitation effects at high altitudes are in ice, *not* in water.

From what we have just said, we note that if we could imagine some way for the charge to be different at the top and bottom of a drop and if we could also see some reason why drops in a high-speed airstream would break up into unequal pieces—a large one in the front and a smaller one in the back because of the motion through the air or something—we would have a theory. (Different from any known theory!) Then the small drops would not fall through the air as fast as the big ones, because of the air resistance, and we would get a charge separation. You see, it is possible to concoct all kinds of possibilities.

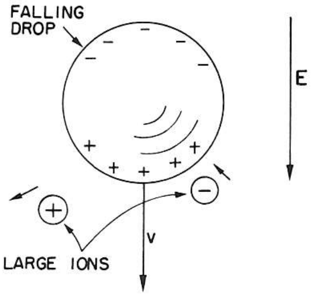


Fig. 9–13. C. T. R. Wilson's theory of charge separation in a thundercloud.

One of the more ingenious theories, which is more satisfactory in many respects than the breaking-drop theory, is due to C. T. R. Wilson. We will describe it, as Wilson did, with reference to water drops, although the same phenomenon would also work with ice. Suppose we have a water drop that is falling in the electric field of about 100 volts per meter toward the negatively charged earth. The drop will have an induced dipole moment—with the bottom of the drop positive and the top of the drop negative, as drawn in Fig. 9–13. Now there are in the air the "nuclei" that we mentioned earlier—the large slow-moving ions. (The fast ions do not have an important effect here.) Suppose that as a drop comes down, it approaches a large ion. If the ion is positive, it is repelled by the positive bottom of the drop and is pushed away. So it does not become attached to the drop. If the ion were to approach from the top, however, it might attach to the negative, top side. But since the drop is falling through the air, there is an air drift relative to it, going upwards, which carries the ions away if their motion through the air is slow enough. Thus the positive ions cannot attach at the top either. This would apply, you see, only to the large, slow-moving ions. The positive ions of this type will not attach themselves either to the front or the back of a falling drop. On the other hand, as the large, slow, *negative* ions are approached by a drop, they will be attracted and will be caught. The drop will acquire negative charge—the sign of the charge having been determined by the original potential difference on the entire earth—and we get the right sign. Negative charge will be brought down to the bottom part of the cloud by the drops, and the positively charged ions which are left behind will be blown to the top of the cloud by the various updraft currents. The theory looks pretty good, and it at least gives the right sign. Also it doesn't depend on having liquid drops. We will see, when we learn about polarization in a dielectric, that pieces of ice will do the same thing. They also will develop positive and negative charges on their extremities when they are in an electric field.

There are, however, some problems even with this theory. First of all, the total charge involved in a thunderstorm is very high. After a short time, the supply of large ions would get used up. So Wilson and others have had to propose that there are additional sources of the large ions. Once the charge separation starts, very large electric fields are developed, and in these large fields there may be places where the air will become ionized. If there is a highly charged point, or any small object like a drop, it may concentrate the field enough to make a "brush discharge." When there is a strong enough electric field—let us say it is positive—electrons will fall into the field and will pick up a lot of speed between collisions. Their speed will be such that in hitting another atom they will tear electrons off at that atom, leaving positive charges behind. These new electrons also pick up speed and collide with more electrons. So a kind of chain reaction or avalanche occurs, and there is a rapid accumulation of ions. The positive charges are left near their original positions, so the net effect is to distribute the positive charge on the point into a region around the point. Then, of course, there is no longer a strong field, and the process stops. This is the character of a brush discharge. It is possible that the fields may become strong enough in the cloud to produce a little bit of brush discharge; there may also be other mechanisms, once the thing is started, to produce a large amount of ionization. But nobody knows exactly how it works. So the fundamental origin of lightning is really not thoroughly understood. We know it comes from the thunderstorms. (And we know, of course, that thunder comes from the lightning—from the thermal energy released by the bolt.)

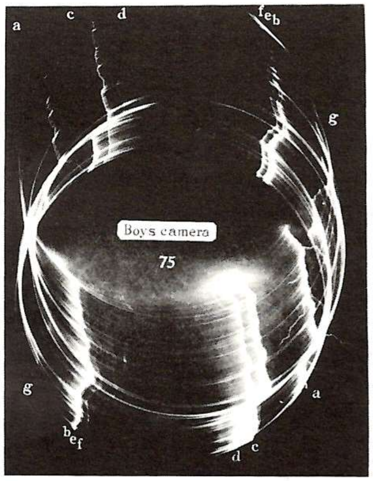


Fig. 9–14. Photograph of a lightning flash taken with a "Boys" camera. [From Schonland, Malan, and Collens, *Proc. Roy. Soc. London*, Vol. 152 (1935).]

At least we can understand, in part, the origin of atmospheric electricity. Due to the air currents, ions, and water drops on ice particles in a thunderstorm, positive and negative charges are separated. The positive charges are carried upward to the top of the cloud (see Fig. 9–11), and the negative charges are dumped into the ground in lightning strokes. The positive charges leave the top of the cloud, enter the high-altitude layers of more highly conducting air, and spread throughout the earth. In regions of clear weather, the positive charges in this layer are slowly conducted to the earth by the ions in the air—ions formed by cosmic rays, by the sea, and by man's activities. The atmosphere is a busy electrical machine!

9–6 Lightning

The first evidence of what happens in a lightning stroke was obtained in photographs taken with a camera held by hand and moved back and forth with the shutter open—while pointed toward a place where lightning was expected. The first photographs obtained this way showed clearly that lightning strokes are usually multiple discharges along the same path. Later, the "Boys" camera, which has *two* lenses mounted 180° apart on a rapidly rotating disc, was developed. The image made by each lens moves across the film—the picture is spread out in time. If, for instance, the stroke repeats, there will be two images side by side. By comparing the images of the two lenses, it is possible to work out the details of the time sequence of the flashes. Figure 9–14 shows a photograph taken with a "Boys" camera.

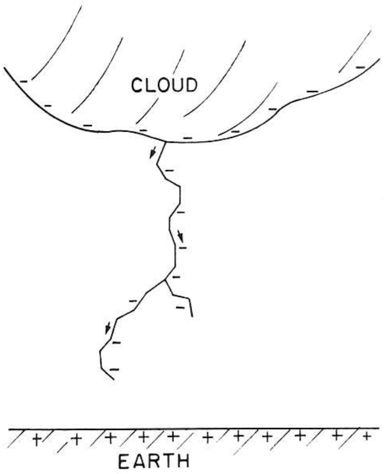


Fig. 9–15. The formation of the "step leader."

We will now describe the lightning. Again, we don't understand exactly how it works. We will give a qualitative description of what it *looks* like, but we won't go into any details of *why* it does what it appears to do. We will describe only the ordinary case of the cloud with a negative bottom over flat country. Its potential is much more negative than the earth underneath, so negative electrons will be accelerated toward the earth. What happens is the following. It all starts with a thing called a "step leader," which is not as bright as the stroke of lightning. On the photographs one can see a little bright spot at the beginning that starts from the cloud and moves downward very rapidly—at a sixth of the speed of light! It goes only about 50 meters and stops. It pauses for about 50 microseconds, and then takes another step. It pauses again and then goes another step, and so on. It moves in a series of steps toward the ground, along a path like that shown in Fig. 9–15. In the leader there are negative charges from the cloud; the whole column is full of negative charge. Also, the air is becoming ionized by the rapidly moving charges that produce the leader, so the air becomes a conductor along the path traced out. The moment the leader touches the ground, we have a conducting "wire" that runs all the way up to the cloud and is full of negative charge. Now, at last, the negative charge of the cloud can simply escape and run out. The electrons at the bottom of the leader are the first ones to realize this; they dump out, leaving positive charge behind that attracts more negative charge from higher up in the leader, which in its turn pours out, etc. So finally all the negative charge in a part of the cloud runs out along the column in a rapid and energetic way. So the lightning stroke you *see* runs *upwards* from the ground, as indicated in Fig. 9–16. In fact, this main stroke—by far the brightest part—is called the *return* *stroke*. It is what produces the very bright light, and the heat, which by causing a rapid expansion of the air makes the thunder clap.

The current in a lightning stroke is about 10,000 amperes at its peak, and it carries down about 20 coulombs.

But we are still not finished. After a time of, perhaps, a few hundredths of a second, when the return stroke has disappeared, another leader comes down. But this time there are no pauses. It is called a "dark leader" this time, and it goes all the way down—from top to bottom in one swoop. It goes full steam on exactly the old track, because there is enough debris there to make it the easiest route. The new leader is again full of negative charge. The moment it touches the ground—zing!—there is a return stroke going straight up along the path. So you see the lightning strike again, and again, and again. Sometimes it strikes only once or twice, sometimes five or ten times—once as many as 42 times on the same track was seen—but always in rapid succession.

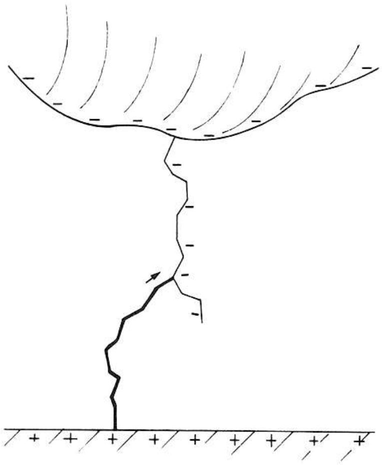


Fig. 9–16. The return lightning stroke runs back up the path made by the leader.

Sometimes things get even more complicated. For instance, after one of its pauses the leader may develop a branch by sending out *two* steps—both toward the ground but in somewhat different directions, as shown in Fig. 9–15. What happens then depends on whether one branch reaches the ground definitely before the other. If that does happen, the bright return stroke (of negative charge dumping into the ground) works its way *up* along the branch that touches the ground, and when it reaches and passes the branching point on its way up to the cloud, a bright stroke appears to go *down* the other branch. Why? Because negative charge is dumping out and that is what lights up the bolt. This charge begins to move at the top of the secondary branch, emptying successive, longer pieces of the branch, so the bright lightning bolt appears to work its way down that branch, at the same time as it works up toward the cloud. If, however, one of these extra leader branches happens to have reached the ground almost simultaneously with the original leader, it can sometimes happen that the *dark* leader of the second stroke will take the second branch. Then you will see the first main flash in one place and the second flash in another place. It is a variant of the original idea.

Also, our description is oversimplified for the region very near the ground. When the step leader gets to within a hundred meters or so from the ground, there is evidence that a discharge rises from the ground to meet it. Presumably, the field gets big enough for a brush-type discharge to occur. If, for instance, there is a sharp object, like a building with a point at the top, then as the leader comes down nearby the fields are so large that a discharge starts from the sharp point and reaches up to the leader. The lightning tends to strike such a point.

It has apparently been known for a long time that high objects are struck by lightning. There is a quotation of Artabanis, the advisor to Xerxes, giving his master advice on a contemplated attack on the Greeks—during Xerxes' campaign to bring the entire known world under the control of the Persians. Artabanis said, "See how God with his lightning always smites the bigger animals and will not suffer them to wax insolent, while these of a lesser bulk chafe him not. How likewise his bolts fall ever on the highest houses and tallest trees." And then he explains the reason: "So, plainly, doth he love to bring down everything that exalts itself."

Do you think—now that you know a true account of lightning striking tall trees—that you have a greater wisdom in advising kings on military matters than did Artabanis 2300 years ago? Do not exalt yourself. You could only do it less poetically.

Hiyo ni sahihi, "sayansi" kwenye vifaa vya mtoza huangalia. Sasa tumehamia kutoka eneo la uvumi, hadi utambuzi. Nasema sayansi katika nukuu kwa sababu sayansi inayopatikana kwa umma imechujwa sana na teknolojia muhimu zimekandamizwa na zimekuwa tangu, oh, mwanzo kabisa. Ndio, ni kauli ngumu lakini naamini ushahidi hauwezi kufutwa tena. Kama ilivyowasilishwa mfumo wa PAE hufanya kesi ya majaribio ya ziada, na kukataa kufanywa hivyo na mizigo ya uthibitisho, sio tu pointer kwa chanzo cha idhini. Naamini mazao au mavuno ya mazao katika miaka ijayo kama antenna ni nzuri tuned, itakuwa data kabisa hatua kutoka wakati hukumu inaweza kufanywa. Kuanzia mwaka huu hakuna mbolea au virutubisho vingine vya kikaboni vimeongezwa kwenye udongo wangu katika mtihani wa Prototype I, wala vitanda vya mtihani wa sekondari kwa majaribio ya mmea binafsi. Udongo wangu ni zaidi slate / kivuli kidogo upande wa asidi kama ilivyokuwa nyumbani kwa miti ya walnut na wildberries ambayo ilikua ngumu licha ya sumu ya jugalone. Nimekuwa na matokeo ya kawaida miaka miwili iliyopita, bila umeme uliotumika.

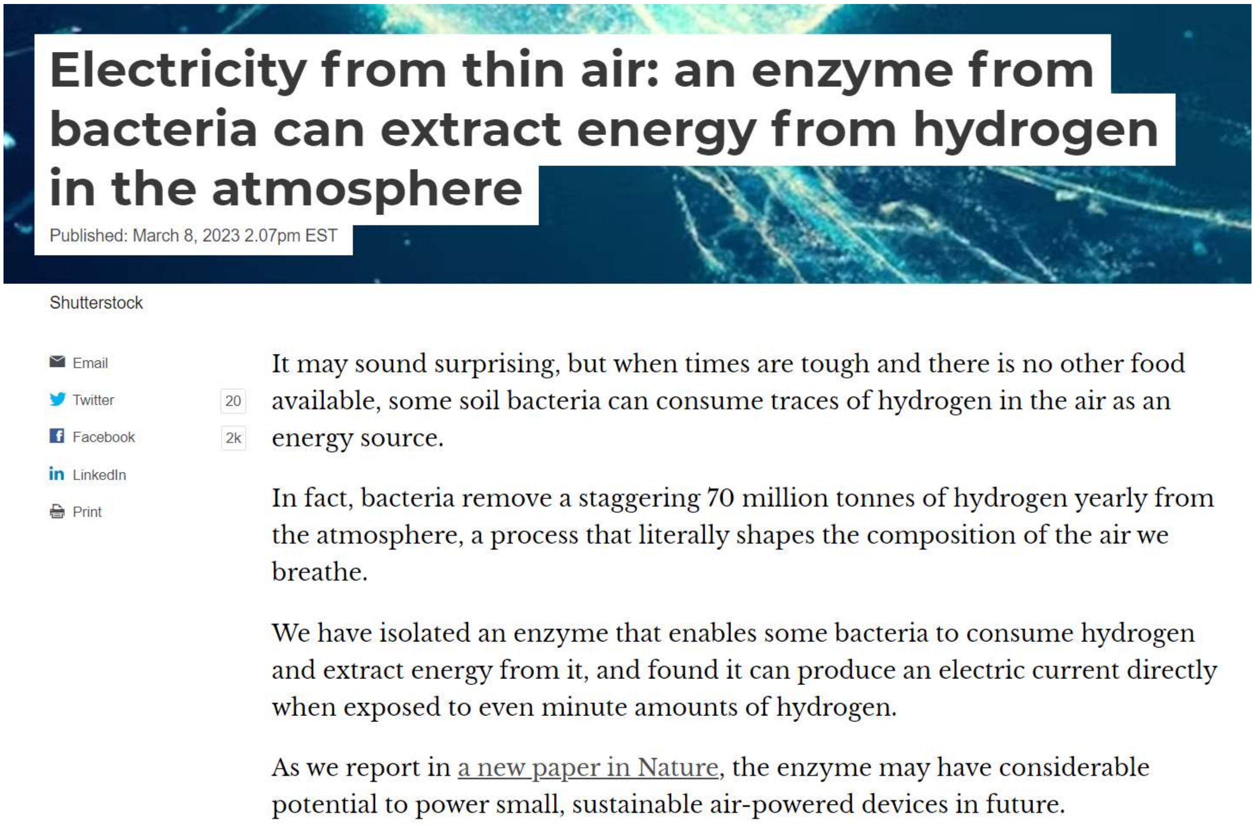
> *"Uhusiano na biolojia*
> *Uwezo wa anga unasababisha mtiririko wa ioni kutoka kwa anga iliyochajiwa vizuri hadi uso wa ardhi ulioshtakiwa vibaya. Juu ya uwanja wa gorofa kwa siku na anga wazi, gradient ya uwezo wa anga ni takriban 120 V / m. [16] Vitu vinavyozunguka mashamba haya, kwa mfano maua na miti, vinaweza kuongeza nguvu ya shamba la umeme kwa kilovolti kadhaa kwa mita.[17] Vikosi hivi vya umeme vya karibu-uso hugunduliwa na viumbe kama vile bumblebee kwenda kwenye maua[17] na spider kuanzisha dispersal kwa puto. [16][18] Uwezo wa anga wa gradient pia unafikiriwa kuathiri* ***sub-uso electro-kemia na michakato microbial.*** *[19]*
>
> *Kwa upande mwingine, wadudu wa swarming[20] na ndege[21] inaweza kuwa chanzo cha malipo ya biogenic katika anga, uwezekano wa kuchangia chanzo cha tofauti ya umeme katika anga."*

https://en.wikipedia.org/wiki/Atmospheric_electricity

Bakteria katika udongo hubadilisha umeme wa anga kuwa chakula kwa mimea.

Soma makala juu ya bakteria ya udongo ambayo hutoa nishati kutoka kwa hidrojeni: March 8, 2023
https://phys.org/news/2023-03-newly-enzyme-air-electricity-source.html

Kurejelea "Sayansi ya Uchawi" waganga wamekuwa wakijihusisha kabisa tangu mwanzo wa wakati, wakati umma na wasomi wa jumla wanapuuza kabisa UKWELI. Kama unaweza kuona taarifa kutoka kwa pete za awali ni kweli.



Electricity from thin air: an enzyme from bacteria can extract energy from hydrogen in the atmosphere

Published: March 8, 2023 2.07pm EST

Shutterstock

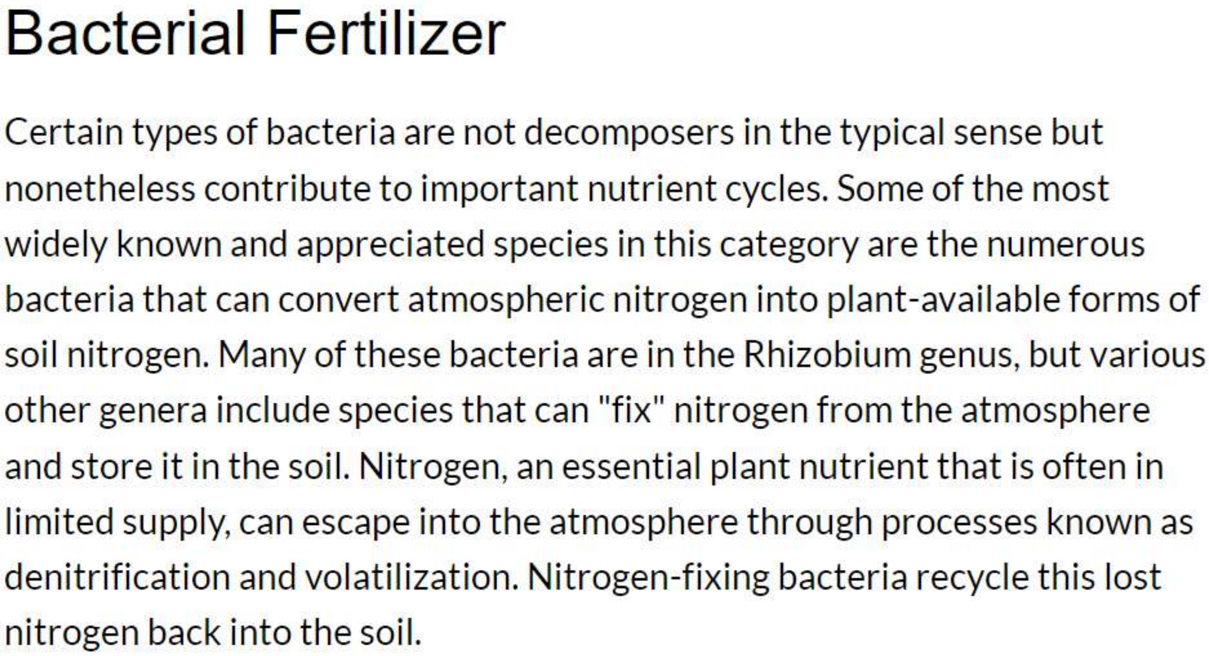
It may sound surprising, but when times are tough and there is no other food available, some soil bacteria can consume traces of hydrogen in the air as an energy source.

In fact, bacteria remove a staggering 70 million tonnes of hydrogen yearly from the atmosphere, a process that literally shapes the composition of the air we breathe.

We have isolated an enzyme that enables some bacteria to consume hydrogen and extract energy from it, and found it can produce an electric current directly when exposed to even minute amounts of hydrogen.

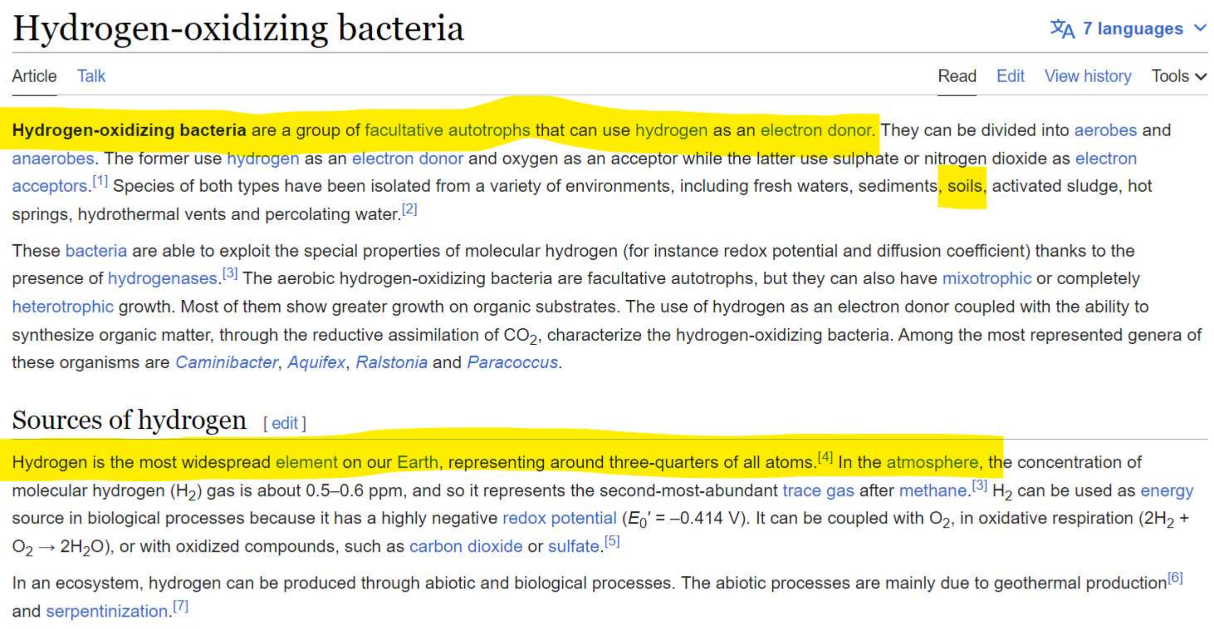
As we report in a new paper in Nature, the enzyme may have considerable potential to power small, sustainable air-powered devices in future.

Mchakato huu wa kugeuza hidrojeni kuwa nishati hufanywa kwa kuibadilisha kuwa nitrojeni ya udongo, ambayo mimea hutumia kama sehemu ya mzunguko wao wa maisha ya lishe. Mfumo wa PAE huleta 600V ya umeme wa anga saa 20' (Tazama Umeme wa Anga) unaotolewa kwenye mita yetu ya mraba kwa 2picoamperes, chini ya udongo katika mkondo thabiti ili kulisha bakteria hii ambayo kwa upande hutoa nishati kwa mimea nutrien lifecycle. Kushinda!



Bacterial Fertilizer

Certain types of bacteria are not decomposers in the typical sense but nonetheless contribute to important nutrient cycles. Some of the most widely known and appreciated species in this category are the numerous bacteria that can convert atmospheric nitrogen into plant-available forms of soil nitrogen. Many of these bacteria are in the Rhizobium genus, but various other genera include species that can "fix" nitrogen from the atmosphere and store it in the soil. Nitrogen, an essential plant nutrient that is often in limited supply, can escape into the atmosphere through processes known as denitrification and volatilization. Nitrogen-fixing bacteria recycle this lost nitrogen back into the soil.



Hydrogen-oxidizing bacteria

Hydrogen-oxidizing bacteria are a group of facultative autotrophs that can use hydrogen as an electron donor. They can be divided into aerobes and anaerobes. The former use hydrogen as an electron donor and oxygen as an acceptor while the latter use sulphate or nitrogen dioxide as electron acceptors.[1] Species of both types have been isolated from a variety of environments, including fresh waters, sediments, soils, activated sludge, hot springs, hydrothermal vents and percolating water.[2]

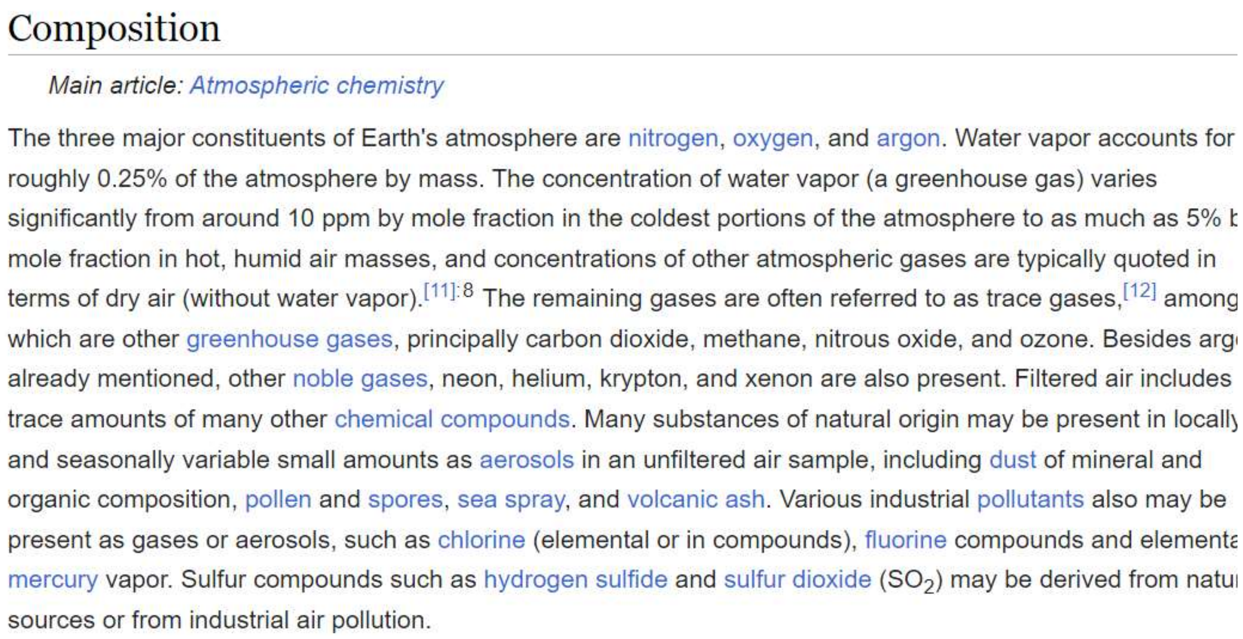
These bacteria are able to exploit the special properties of molecular hydrogen (for instance redox potential and diffusion coefficient) thanks to the presence of hydrogenases.[3] The aerobic hydrogen-oxidizing bacteria are facultative autotrophs, but they can also have mixotrophic or completely heterotrophic growth. Most of them show greater growth on organic substrates. The use of hydrogen as an electron donor coupled with the ability to synthesize organic matter, through the reductive assimilation of CO_2, characterize the hydrogen-oxidizing bacteria. Among the most represented genera of these organisms are *Caminibacter*, *Aquifex*, *Ralstonia* and *Paracoccus*.

Sources of hydrogen [edit]

Hydrogen is the most widespread element on our Earth, representing around three-quarters of all atoms.[4] In the atmosphere, the concentration of molecular hydrogen (H_2) gas is about 0.5–0.6 ppm, and so it represents the second-most-abundant trace gas after methane.[3] H_2 can be used as energy source in biological processes because it has a highly negative redox potential (E_0' = –0.414 V). It can be coupled with O_2, in oxidative respiration ($2H_2 + O_2 \rightarrow 2H_2O$), or with oxidized compounds, such as carbon dioxide or sulfate.[5]

In an ecosystem, hydrogen can be produced through abiotic and biological processes. The abiotic processes are mainly due to geothermal production[6] and serpentinization.[7]

Gesi za Kaba zinashikilia ufunguo wa kufungua siri ya aethers. Mfumo wetu wa wamiliki wa PAE hutumia nguvu isiyo na nguvu ya gesi hizi ambazo tunatumia kama pointi za msingi kuingiliana na nguvu zisizoonekana za anga ya umeme karibu nasi, kama ilivyothibitishwa.



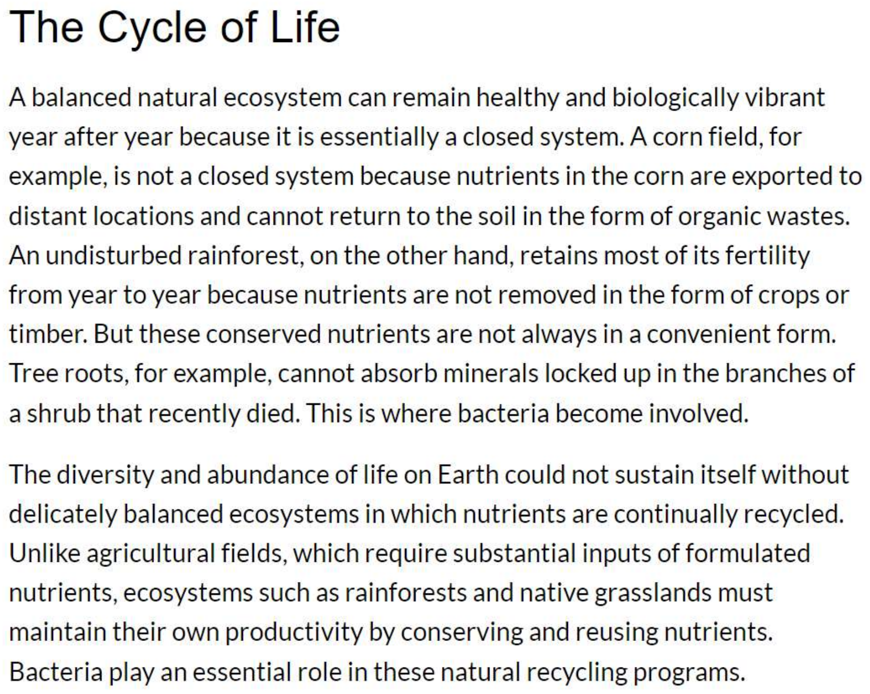
Composition

Main article: Atmospheric chemistry

The three major constituents of Earth's atmosphere are nitrogen, oxygen, and argon. Water vapor accounts for roughly 0.25% of the atmosphere by mass. The concentration of water vapor (a greenhouse gas) varies significantly from around 10 ppm by mole fraction in the coldest portions of the atmosphere to as much as 5% b mole fraction in hot, humid air masses, and concentrations of other atmospheric gases are typically quoted in terms of dry air (without water vapor).[11]:8 The remaining gases are often referred to as trace gases,[12] among which are other greenhouse gases, principally carbon dioxide, methane, nitrous oxide, and ozone. Besides arg already mentioned, other noble gases, neon, helium, krypton, and xenon are also present. Filtered air includes trace amounts of many other chemical compounds. Many substances of natural origin may be present in locall and seasonally variable small amounts as aerosols in an unfiltered air sample, including dust of mineral and organic composition, pollen and spores, sea spray, and volcanic ash. Various industrial pollutants also may be present as gases or aerosols, such as chlorine (elemental or in compounds), fluorine compounds and elementa mercury vapor. Sulfur compounds such as hydrogen sulfide and sulfur dioxide (SO_2) may be derived from natu sources or from industrial air pollution.

Ardhi nzuri ya kulisha nyuma ya Loop
Mzunguko wa Maisha

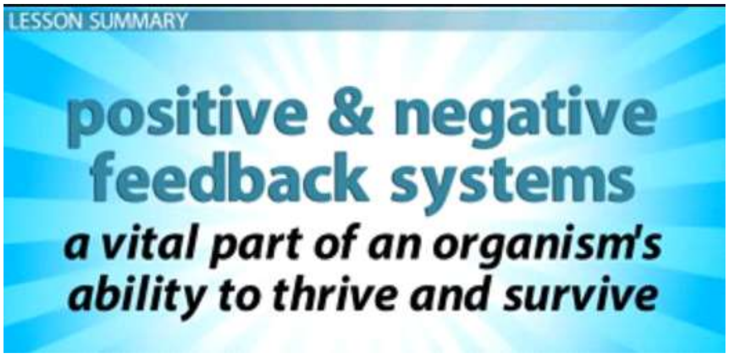
Kwenye ardhi nzuri kulisha nyuma kitanzi, Electroculture **ni** suluhisho la kurudi kwa usafi na mazoea ya kilimo yenye afya.



The Cycle of Life

A balanced natural ecosystem can remain healthy and biologically vibrant year after year because it is essentially a closed system. A corn field, for example, is not a closed system because nutrients in the corn are exported to distant locations and cannot return to the soil in the form of organic wastes. An undisturbed rainforest, on the other hand, retains most of its fertility from year to year because nutrients are not removed in the form of crops or timber. But these conserved nutrients are not always in a convenient form. Tree roots, for example, cannot absorb minerals locked up in the branches of a shrub that recently died. This is where bacteria become involved.

The diversity and abundance of life on Earth could not sustain itself without delicately balanced ecosystems in which nutrients are continually recycled. Unlike agricultural fields, which require substantial inputs of formulated nutrients, ecosystems such as rainforests and native grasslands must maintain their own productivity by conserving and reusing nutrients. Bacteria play an essential role in these natural recycling programs.

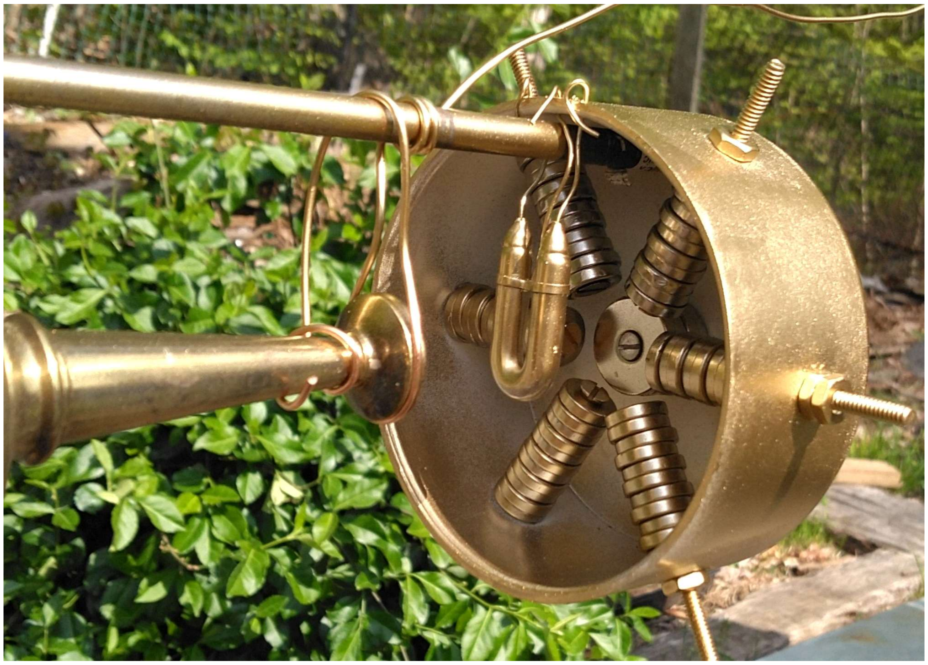


LESSON SUMMARY

positive & negative feedback systems

a vital part of an organism's ability to thrive and survive

Vifaa vya Nishati ya Msingi
Hexbeamer



Maelezo ya kifaa hiki ni zaidi ya upeo wa makala hii.

Kile unachoona ni balbu ya Xenon katika kugongana (kufunga) mashamba ya sumaku, yaani, sumaku zinalazimishwa pamoja dhidi ya mashamba yao ya sumaku na kuunda nguzo mpya ya sumaku ya tangent ya uwanja wa asili wa sumaku.

Sehemu hii ya sumaku, iliyo na mawimbi ya longitudinal kutoka kwa mashamba ya sumaku ya kugongana, hufanya flux ya sumaku kwenye Xe ya gesi ya heshima katika balbu, ikibadilisha hali ya vibratory ya gesi ya inert. Boriti inayosababisha ni kitu kama boriti ya scalar, kwani moja ya vectors zake zinaenea kutoka kwa dipole ya mwingiliano, kutoka upande mwingine, 99% ya aether ambayo hatuoni.

Nishati ya Msingi (Primordial) zinazozalishwa kutoka kwa kifaa cha Hexbeamer ina athari tofauti kabisa kwa mimea, mambo yote ya kibiolojia kwa kweli, ikiwa ni pamoja na wanadamu. Mawimbi ya muda mrefu ya hila yanaweza kuhisi mara moja, na athari inaonyeshwa kuwa athari ya uponyaji, kuzaliwa upya kwa asili. Waandishi wenyewe muongo wa uzoefu sio agano pekee la ukweli, nimetumia kifaa kusaidia marafiki kuponya kwa miaka yote, wakati wa ugonjwa au kuumia, kwa kuwaweka kwenye boriti iliyoundwa na Hexbeamer.

Ona: ref a

Mchoro hapa chini naamini unatoka kwa mchawi Manly P. Hall, njia kabla ya mchoro huu inaweza kuthibitishwa na fizikia ya kisasa. Ngoja nikukumbushe,

"kabisa na kupuuza kabisa utafiti mmoja ambao waganga wa uchawi wamehusika tu"
kama ilivyoelezwa kutoka kinywani mwao wenyewe.

Ninachosema ni kwamba, hizi "a$$ hats" wamekuwa wakicheza mkono kidogo kwa muda mrefu, wakiweka ubinadamu wote gizani. Kumbuka ni Mfalme Sulemani mmoja wa wachawi wa OG (wa genge la asili) ambao walitangaza hakuna kitu kipya chini ya jua. Mpya haipo. Kuwepo, udhihirisho huu ni wa baiskeli, au ikiwa umepangwa kwenye mstari, wimbi la sine kama oscilloscope inapima matokeo ya umeme. Au kama mchoro.

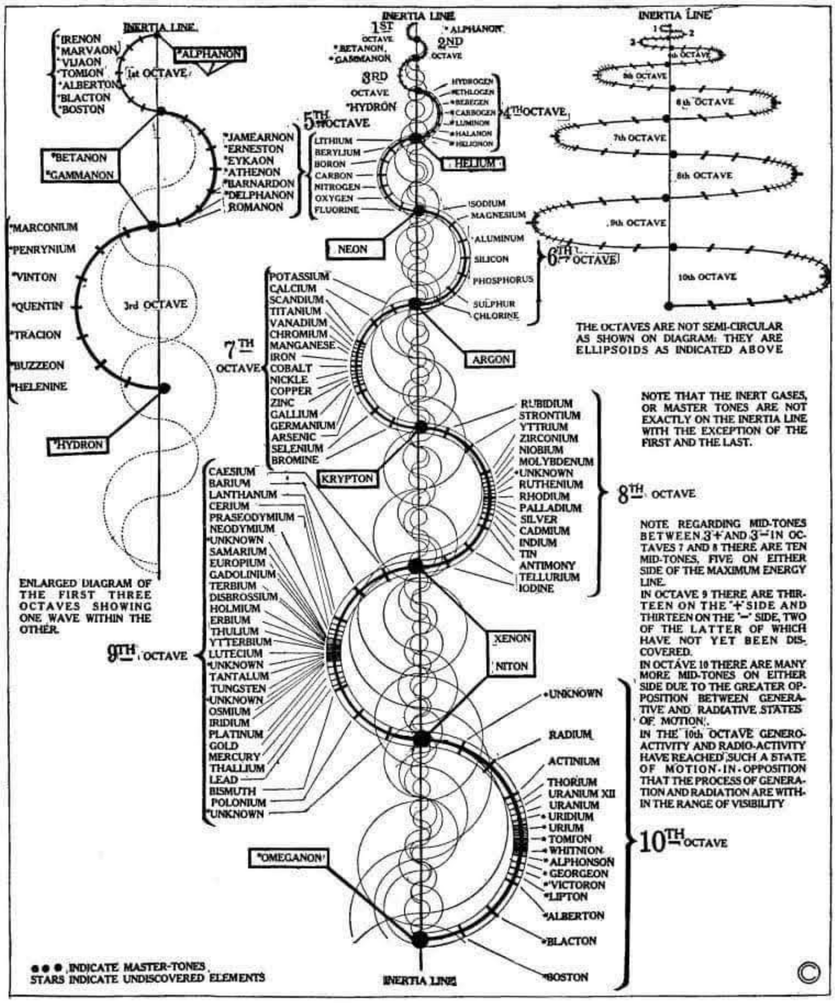
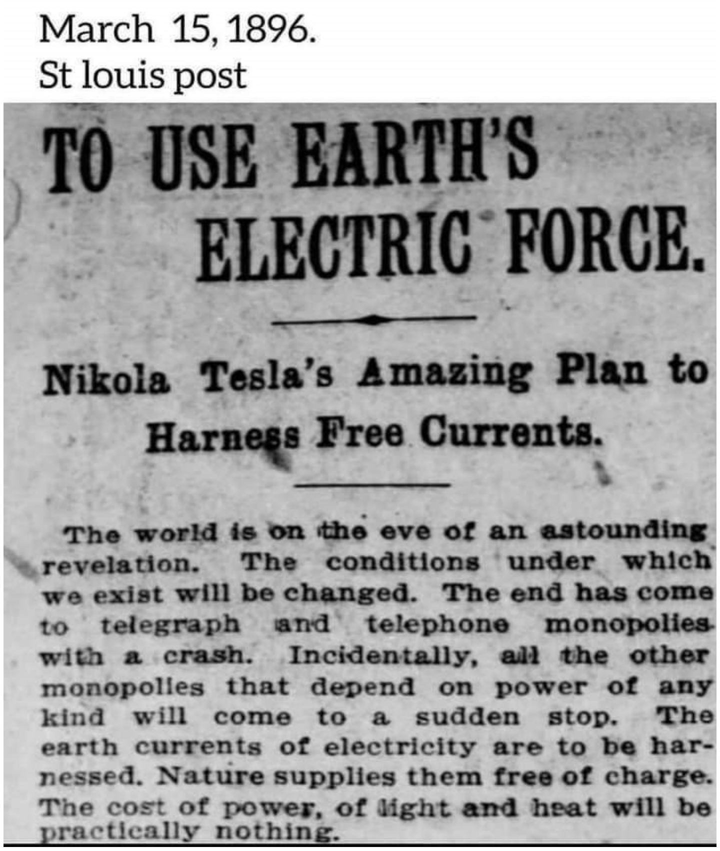


DIAGRAM SHOWING THE TEN OCTAVES OF INTEGRATING LIGHT, ONE OCTAVE WITHIN THE OTHER. THESE TEN OCTAVES CONSTITUTE ONE COMPLETE CYCLE OF THE TRANSFER OF THE UNIVERSAL CONSTANT OF ENERGY INTO, AND THROUGH, ALL OF ITS DIMENSIONS IN SEQUENCE

Mganga wa kienyeji Nikola Tesla anasema nini;



March 15, 1896.
St louis post

TO USE EARTH'S ELECTRIC FORCE.

Nikola Tesla's Amazing Plan to Harness Free Currents.

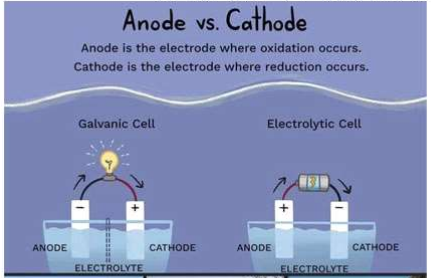
The world is on the eve of an astounding revelation. The conditions under which we exist will be changed. The end has come to telegraph and telephone monopolies with a crash. Incidentally, all the other monopolies that depend on power of any kind will come to a sudden stop. The earth currents of electricity are to be harnessed. Nature supplies them free of charge. The cost of power, of light and heat will be practically nothing.

"Nikola Tesla alizaliwa Serb wa kikabila katika kijiji cha Smiljan, ndani ya Jeshi Frontier, katika Dola ya Austria (leo Croatia), mnamo 10 Julai [O.S. 28 Juni] 1856. Baba yake, Milutin Tesla (1819-1879), alikuwa padri wa Kanisa la Orthodox la Mashariki."

Kanisa la Orthodox la Mashariki huenda lilikuwa kizazi cha mwisho cha makuhani ambao walikuwa na ujuzi wa teknolojia ya zamani kupita kati yao, lakini sio kwa umma. Young Nikola alikuwa mrithi wa teknolojia hii akiiendeleza zaidi kwa matumizi ya bure ya umma, ambayo sote tunajua ilivunjwa na bidhaa inayotozwa zaidi ya usambazaji kupitia makondakta wa waya. Kwa nini tunapaswa kuwa na kitu cha bure ambacho mfumo unaweza kututoza?

Mizunguko ya umeme kwa umeme wa anga iliyoonyeshwa kwenye sampuli hii ya vazi la kuhani wa Kanisa la Orthodox la Mashariki. Ya Schema watawa kama wanavyojulikana, wamelemewa na tunics hizi zinazowakilisha kubeba msalaba wa Yesu Kristo tangu 300 AD. Hiyo inarudia, sivyo? Resonance ni jina la mchezo. Hodi, hodi? Ni nani yuko hapo? Ukweli MF, ukweli unapiga mlango wa kutoelewana kwa utambuzi. Kama ilivyo katika freemasonry ambapo ukweli unafunuliwa tu kwa digrii 33 huanzisha, kuhani wako wa wastani kanisani huenda hayuko kwenye scheme. Hakuna bahati mbaya, kuna usawazishaji tu ambao watu wengi wanashindwa kuelewa. Mabwana wa pazia la pili ni wahalifu wa kweli. Hii pia itafunuliwa katika makala za baadaye, ambapo tena, yao wenyewe ishara zitatumiwa kuwashusha chini.

FOR PUBLIC DISTRIBUTION

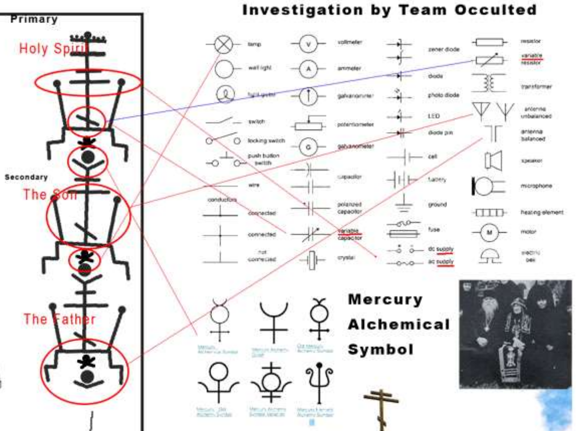

Anode vs. Cathode

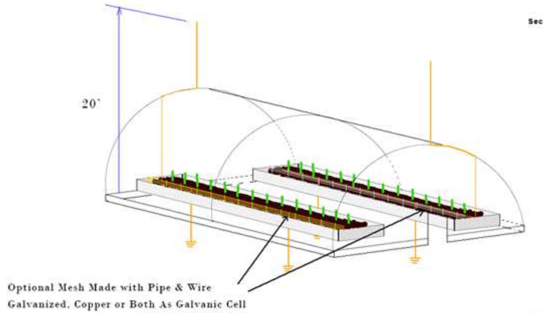
Anode is the electrode where oxidation occurs.
Cathode is the electrode where reduction occurs.

Nothing to see here.
Schema monks, huh?
Wiring Schematics.
Coincidence I'm sure.

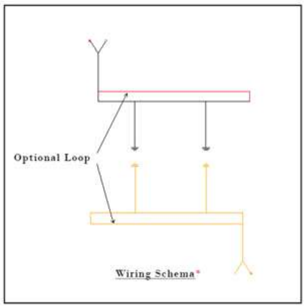
Atmospheric Electricity Resonance Circuit
As On Orthodox Schema Monks

Investigation by Team Occulted





Optional Mesh Made with Pipe & Wire
Galvanized, Copper or Both As Galvanic Cell
As Suggested By Willy Bird



Wiring Schema*

Notes:
Above ground planters require good ground rods.
Transmission wire can be galvanized 14 -18 awg
(2) Basic Electroculture Antennas @ 20'
Standard Hoop House Sizes
One circuit can be entirely copper the other galvanized.
* Schema Monks Original Atmospheric Schematics

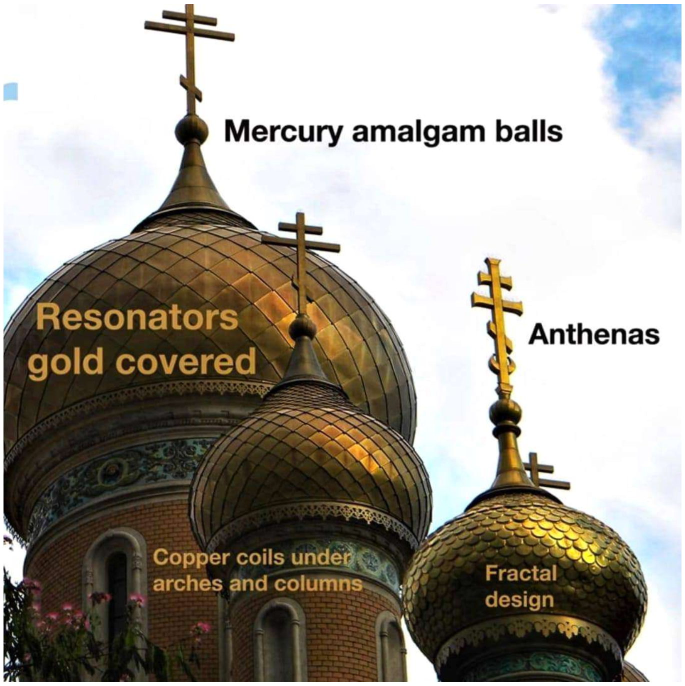
A	TEAM ELECTRO
	TEAMELECTROCULTURE•COM
	Title Basic Configuration Single Hoop House
	DWG No. 030-C3-0723
	scale / sheet

Symbols, again coincidence.

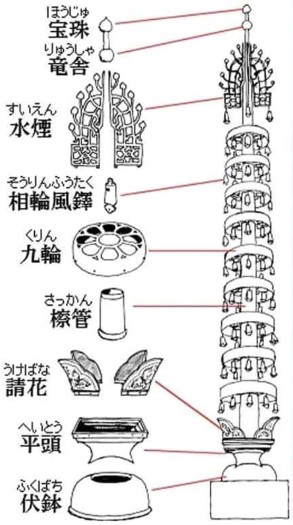
Orthodox Priest
Milutin Tesla
Teslas Father

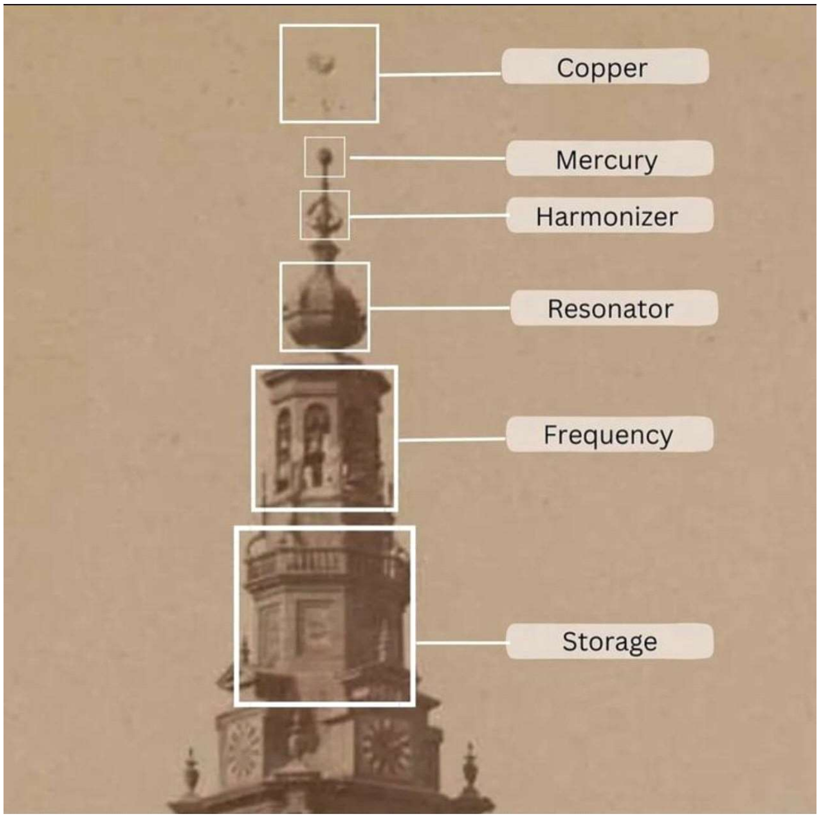
I'm Mickey Mouse & This is Disney Land
Oh, you should read why they wear the garments!
Since 3rd century the Schema (Schematic) monks
have burdened the weight of Jesus cross.
Let us relinquish them of the weight, and decode
what these monks really have on their tunics.

Ni bora kuwa makini kwa sababu huwezi kujifunza mahali pengine popote.

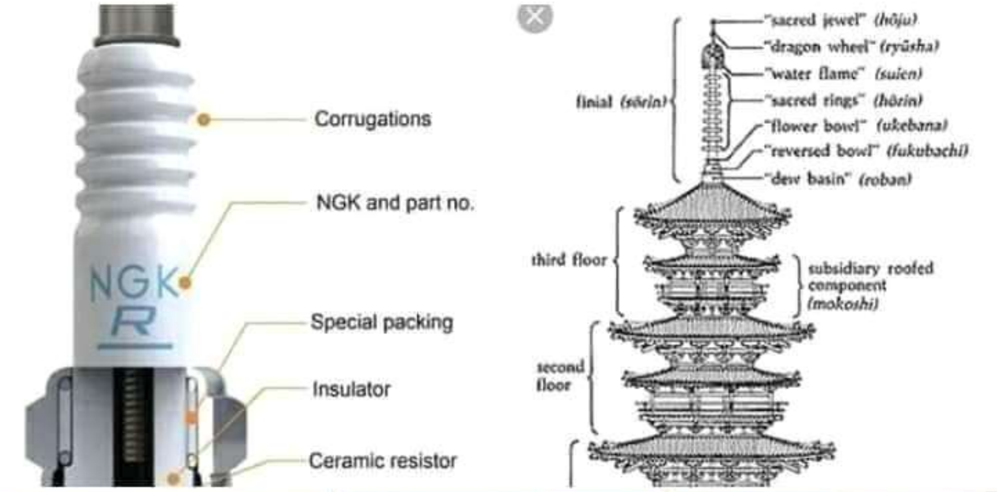


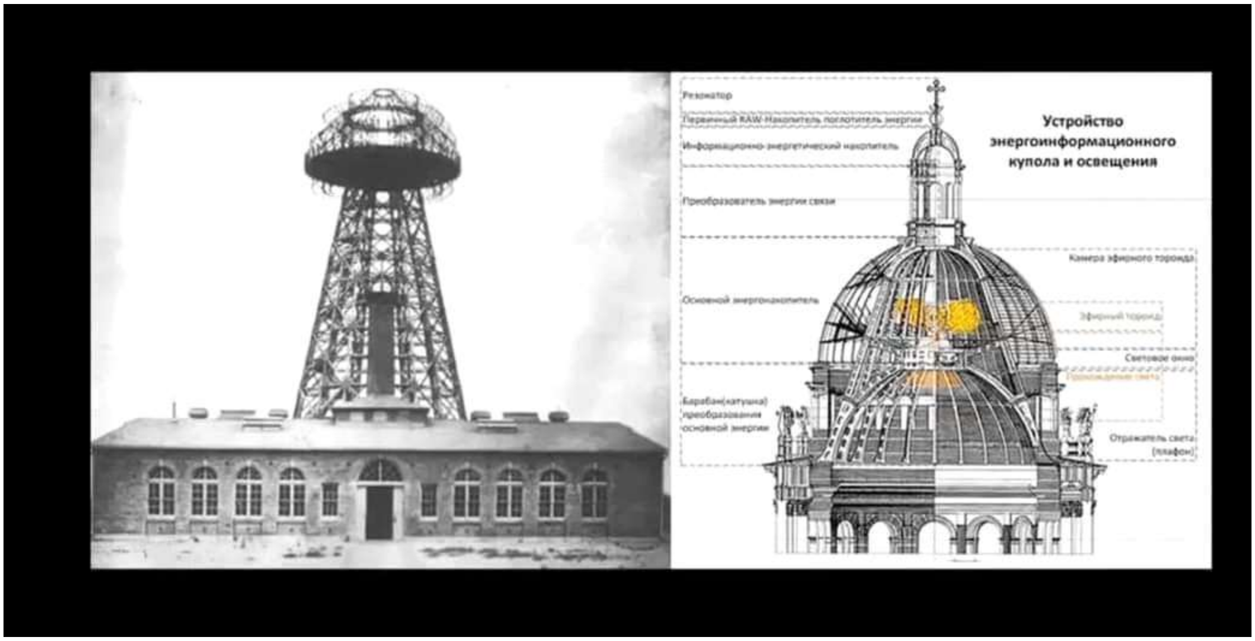
Ndio, hizi zilitumika kwa kizazi cha enegy WAY kabla ya Mapinduzi ya Viwanda! Kabla ya Tesla, kabla ya Faraday, kabla ya Maxwell, Lorentz & Volta! Teknolojia za Occultists zinatoka kabla ya Deluge Mkuu kutoka kwa ustaarabu wa antidiluvian. Hadithi ya mafuriko ni kweli sio tu katika mstari wa hadithi ya Waebrania. Saga ya kusisimua ya mtu anayejulikana kama Nuhu itafunuliwa katika makala zijazo.



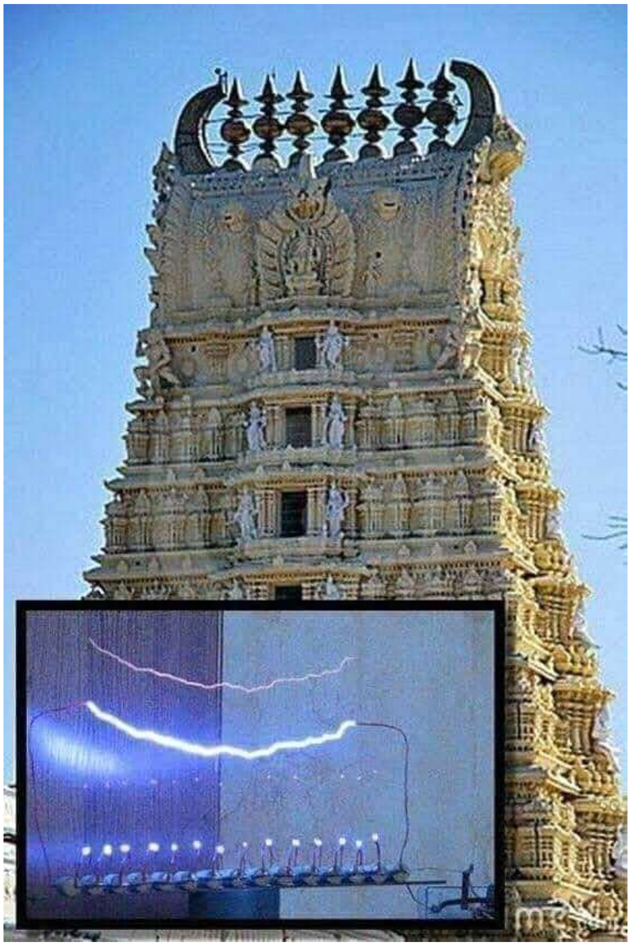


Csak összehasonlításképpen. Ingyen energia és a mai technológia. Gondolatébresztőnek...





Устройство энергоинформационного купола и освещения
Резонатор
Первичный RAW-Накопитель поглотитель энергии
Информационно-энергетический накопитель
Преобразователь энергии связи
Основной энергонакопитель
Барабан(катушка) преобразования основной энергии
Камера эфирного тороида
Эфирный тороид
Световое окно
Отражатель света (плафон)



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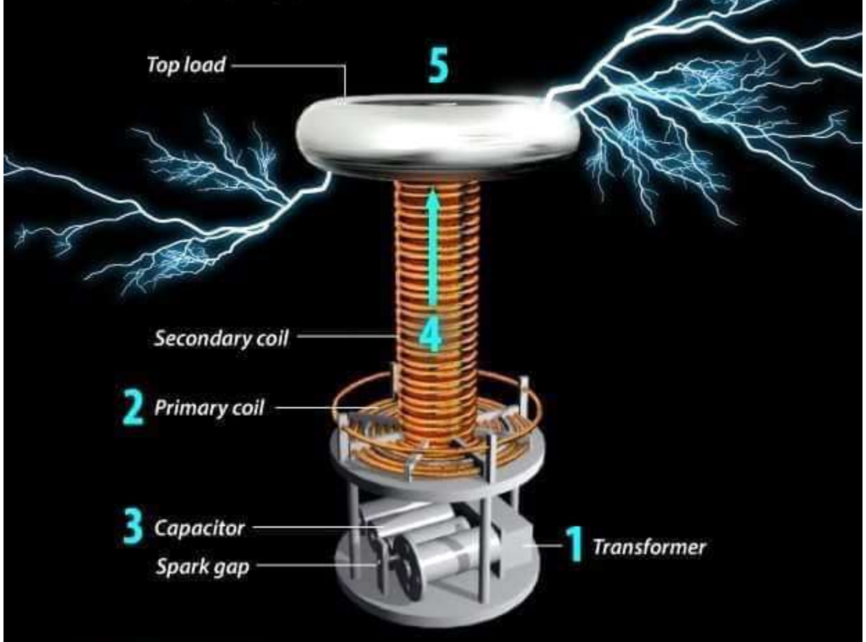
THE TESLA COIL

Named for its inventor, Nikola Tesla, this machine transforms energy into extremely high-voltage charges, creating powerful electrical fields capable of producing spectacular electrical arcs. Besides the lightning-bolt shows they can put on, Tesla coils had very practical applications in wireless radio technology and some medical devices.

A **Tesla coil** is made of two parts: a *primary coil* and a *secondary coil*, each with its own *capacitor*. The two coils are connected by a *spark gap*, and the whole system is powered by a high-energy source and *transformer*. Basically, two circuits are connected by a spark gap.



HOW IT WORKS:

1. The transformer boosts the voltage.

2. The power source is hooked up to the primary coil. The primary coil's capacitor acts like a sponge and soaks up the charge.

3. Electric current builds up in the capacitor until it reaches a tipping point. The current streams out of the capacitor into the coil. Once the first capacitor is completely wrung out and has no energy left, the inductor reaches its maximum charge and sends the voltage into the spark gap (basically a gap of air between two electrodes).

4. The huge voltage current flows through the spark gap into the secondary coil. The energy sloshes back and forth between the two coils.

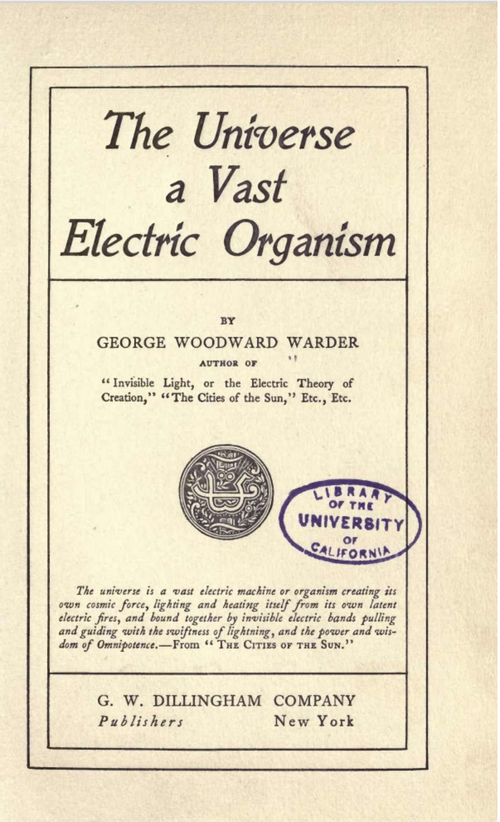
5. The secondary coil has a top-load capacitor that concentrates all the current and can eventually shoot out lightninglike bolts.

The idea is to achieve a phenomenon called resonance between the two coils. Resonance happens when the primary coil shoots the current into the secondary coil at the perfect time that maximizes the energy transferred into the secondary coil. Think of it as timing a push to a swing to make it go as high as possible.

SOURCES: TESLASOCIETY.COM, TESLACOILDESIGN.COM

KELLY DICKERSON, R. TORO / © LiveScience.com

livescience



The Universe
a Vast
Electric Organism

BY
GEORGE WOODWARD WARDER
AUTHOR OF
"Invisible Light, or the Electric Theory of Creation," "The Cities of the Sun," Etc., Etc.

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CALIFORNIA

The universe is a vast electric machine or organism creating its own cosmic force, lighting and heating itself from its own latent electric fires, and bound together by invisible electric bands pulling and guiding with the swiftness of lightning, and the power and wisdom of Omnipotence.—From "THE CITIES OF THE SUN."

G. W. DILLINGHAM COMPANY
Publishers New York

ref b

Siku zote mimi hufanya hivyo ili kuwaruhusu wale wanaocheka mambo haya ninapojaribu kuzungumza nao, kujua kwamba wale wanaocheka kwanza, kwa kawaida hawachekei mwisho. Uongo wa kejeli daima umesababisha hitimisho la uwongo. Ridicule ni kama kutupa mafuta ya ndege kwenye moto wa napalm, yako tu kuhamasisha hali.

Ukweli utatawala kila wakati.

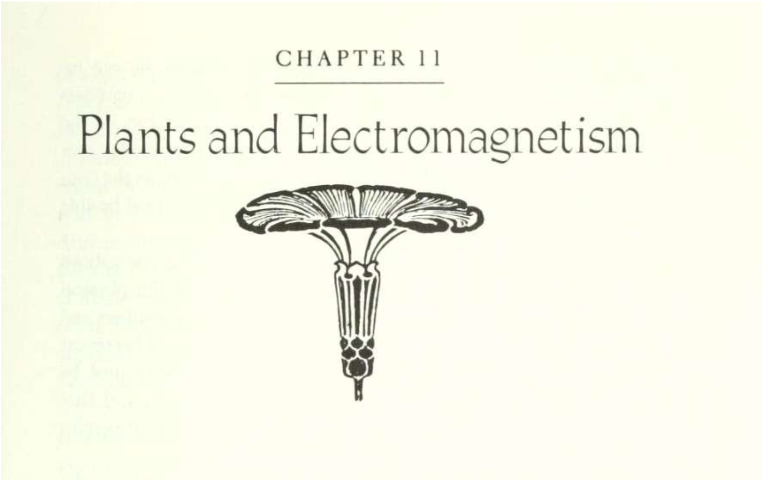
Lakhovsky, Siri ya Maisha - Umekuwa wapi?

> *"Tunajifunza nini kutoka kwa mtu huyu wa ajabu? Anasema kuwa seli hai ni resonator ya umeme yenye uwezo wa kutoa na kunyonya mionzi ya masafa ya juu sana. Maisha ni usawa wa nguvu wa seli zote; maelewano ya mionzi mingi ambayo hujibu juu ya kila mmoja. Magonjwa, kwa upande mwingine, ni tofauti ya oscillatory ya seli zinazotokana na sababu za nje. Kila seli hai hutoa mionzi kutoka kwa kiini chake ambacho kina mzunguko wake wa kibinafsi wa oscillating. Uundaji wa kijiometri wa seli husababisha kutenda kama mzunguko wa umeme ambao una inductance ya kibinafsi na uwezo. oscillation ya asili ya nishati katika seli naamini kuwa kutokana na mwingiliano wa mara kwa mara wa suala na mzunguko wa antimatter kujadiliwa katika sehemu nyingine za kitabu hiki. Kunde kama pendulum hutokea kati ya vitu vya kimwili na visivyo vya kimwili.*

Wakati mionzi yenye nguvu imewekwa kwenye seli na ushawishi wa nje, basi rhythm ya asili ya seli huathiriwa na huanza kuvunjika. Ikiwa mionzi ya seli inaweza kurejeshwa kwa yake rhythm ya asili basi itaanza tena hali yake ya afya. Lakhovsky aligundua kuwa angeweza kukamilisha marejesho haya ya rhythm ya asili kwa njia ya mashamba ya bandia ya oscillating. Kwa kufanya hivyo, alitumia mbinu mbili tofauti. Kwanza, kwa kutumia ya vitanzi vya ond ya waya wa shaba ambayo ingeanzisha mashamba ya umeme-magnetic kwa usawa kwa nguvu za maisha. Vitanzi hivi vya waya viliwekwa karibu na mmea au eneo la kutibiwa, na bionic ya asili rhythm itazidishwa na kuingizwa kwa kitanzi cha waya."

The Energy Grid
The Pulse of the Universe
Bruce L. Cathie

Akizungumza juu ya;
The Secret of Life by G. Lakhovsky first printed
in 1935



CHAPTER 11

Plants and Electromagnetism

gardens below.

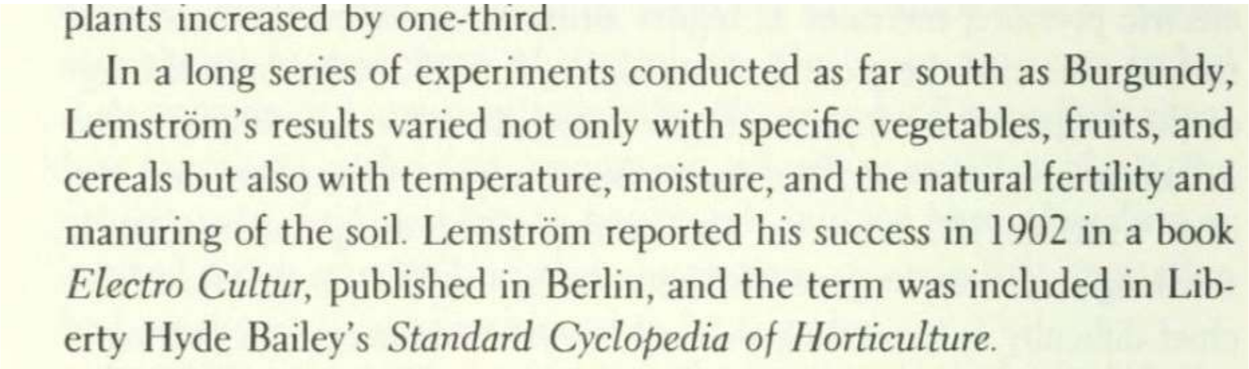
These French and Italian reports caused little stir among the scientific pundits of the day, who, even then, were beginning to pay more attention to the effects of electricity on inert, rather than on living, bodies. Nor were they impressed when yet another clergyman, Abbé Bertholon, came out in 1783 with a full-scale treatise, *De l'Electricité des Végétaux.* A professor of experimental physics at French and Spanish universities, Bertholon gave strong support to Nollet's idea that by altering the viscosity, or flow resistance, of fluids in living organisms electricity could change their growth functions. He cited the report of an Italian physicist, Giuseppe Toaldo, that in a row of jasmine bushes the two which were next to a lightning conductor grew thirty feet tall whereas all the others attained only four feet.

others attained only four feet.

Bertholon, who was considered something of a sorcerer, had a gardener stand on a slab of insulating material and sprinkle vegetables from an electrified watering can. He reported that his salads grew to an extraordinary size. He also invented what he called an "electrovegetometer" to collect atmospheric electricity by means of an antenna, and pass it through plants growing in a field. "This instrument," he wrote, "is applicable to all kinds of vegetal production, everywhere, in all weather; and its utility and efficacity cannot be ignored or doubted except by timid souls who are not inspired by discoveries and who will never push back the barriers of the sciences but will remain eternally within the narrow confines of a cowardly pusillanimity which, to palliate it, is too

For centuries the attractive forces in amber and lodestone were thought to be "penetrating etheric fluids" (whatever *they* might be), emitted by the substances. Even fifty years after Mairan's experiments, Joseph Priestley, known principally as the discoverer of oxygen, wrote in his popular textbook on electricity:

> The earth and all the bodies we are acquainted with, without exception, are supposed to contain a certain quantity of an exceedingly elastic and subtle fluid which philosophers have agreed to term electric. The moment any body becomes possessed of more or less than its natural quantity, very remarkable effects arise from it. The body is said to be electrified and is capable of exhibiting appearances which are ascribed to the power of electricity.



plants increased by one-third.

In a long series of experiments conducted as far south as Burgundy, Lemström's results varied not only with specific vegetables, fruits, and cereals but also with temperature, moisture, and the natural fertility and manuring of the soil. Lemström reported his success in 1902 in a book *Electro Cultur*, published in Berlin, and the term was included in Liberty Hyde Bailey's *Standard Cyclopedia of Horticulture.*

Tazama Kipengee'x' katika Marejeo ya kufikia kitabu kizima.

RIPOTI JUU YA UCHUNGUZI WA UTAMADUNI WA ELECTRO KATIKA CHRISTCHURCH KATI YA SEPTEMBA 1972 NA JUNI 1973

Ripoti hii ni rekodi ya majaribio mawili tofauti niliyofanya wakati wa spring na majira ya joto ya 1972-73 ambayo nilijaribu kutathmini athari iliyoripotiwa uwanja wa sumaku una ukuaji wa mimea. Hii ilifanywa na mimea inayokua ndani ya eneo la angani ya waya na kulinganisha kiwango chao cha ukuaji na ile ya mimea mingine ya spishi sawa iliyopandwa nje ya eneo hili la ushawishi. Anga kama hizo zinaripotiwa kuwa na uwezo wa kibiashara huko California na hutumiwa kutengwa kwa mafuta ya kuchoma moshi katika bustani za usiku wa baridi.

Inashukiwa kuwa waya ni wa mpangilio kama huo kwamba zinapatana na urefu wa mwanga na uwanja wa sumaku ya dunia, na zina athari za kupatanisha au kuongeza chanzo hiki cha nishati, ambacho mimea inaweza kugonga, ikiwa ni asili zaidi ya vyanzo vya nishati karibu na jua. Anga ilijengwa kwa ukubwa wa robo ya vipimo vilivyoonyeshwa katika Mchoro 22, kwa sababu ya matatizo ya kimwili katika kujenga ukubwa kamili, kwa mtu wa nyumbani.

Msaada wa wima ulikuwa waterpipe ya zamani ya mabati, insulators zilitengenezwa kutoka kwa formica ya kibiashara, waya ulikuwa nambari 10 galvanised, coils saba za waya zilizo na sumaku za alnico bar zilizowekwa ndani yao, nguzo ya kaskazini juu. Mpangilio huu ulianzishwa na moja ya miguu iliyounganishwa kando ya sumaku kaskazini. Anga hii ilijengwa kwenye ardhi ya kitalu ambapo udongo wa mchanga wa Waimakariri haukuwa na matibabu maalum na ulikuwa wa asili ya sare. Muuguzi ambaye aliniruhusu kutumia ardhi yake pia alitoa mimea ya lettuce, ambayo ilikuwa na ukubwa wa inchi 2-3, na sare.

Alipendekeza lettuces kwa mtihani, kwani ni mmea wa kukua haraka unaofaa kwa majaribio ya aina hii. Walipandwa mnamo 3 Septemba 1972; kando ya nguzo ya kati; kwa miguu 5 na futi 11; na kando ya coil kwa futi 30, na kwa futi 50 kutoka kwenye mti.

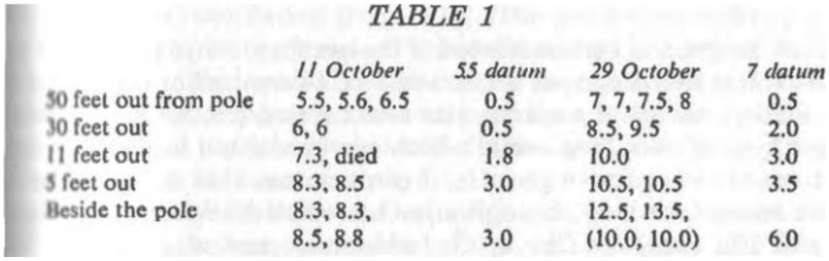


TABLE 1

	11 October	*5.5 datum*	*29 October*	*7 datum*
50 feet out from pole	5.5, 5.6, 6.5	0.5	7, 7, 7.5, 8	0.5
30 feet out	6, 6	0.5	8.5, 9.5	2.0
11 feet out	7.3, died	1.8	10.0	3.0
5 feet out	8.3, 8.5	3.0	10.5, 10.5	3.5
Beside the pole	8.3, 8.3, 8.5, 8.8	3.0	12.5, 13.5, (10.0, 10.0)	6.0

Kundi hili la mwisho lilidhaniwa kuwa wazi juu ya ushawishi, ikiwa ipo, ya mpangilio wa angani. Mimea yote ilipokea maji wakati wa kupanda na tena jioni hiyo, ili kuwasaidia kupata imara, lakini baada ya wakati huu maji pekee waliyopokea yalitokana na mvua. Masomo ya kipenyo cha wastani katika kila mmea yalifanywa wiki tano na nane baada ya kupanda na zilikuwa kama ifuatavyo. Vipimo viko katika inchi:

Kutumia inchi 5 1/2 kama datum kwa kulinganisha vipimo mnamo 11 Oktoba, na inchi 7 kwa vipimo hivyo vilivyochukuliwa mnamo 29 Oktoba, nguzo za datum zinaonyesha ukubwa wa wastani wa mmea katika kila nafasi, ambayo inacheza ukuaji wa mmea wa kasi ulioonyeshwa na mimea karibu na katikati ya angani. Kwa mfano, wawili hao kwa nguzo walimaliza inchi 6 zaidi kwa kipenyo kuliko mifano ambayo ilikuwa wazi ya eneo hilo kwenye kituo cha 50-feet, na walikuwa na mioyo iliyoendelea vizuri. Mimea miwili ambayo ilikua hadi inchi 10 kando ya nguzo iliambukizwa na aphids. Kwa kuwa sikutarajia matokeo yaliyoonyeshwa kuwa kwa bahati mbaya yalikuwa yamejaa, mimea hii miwili ilishindwa kwa mbili kubwa. Matokeo yaliyopatikana yanaonyesha uboreshaji wa alama katika hali ya lettuce karibu na katikati ya mpangilio. Mimea miwili na nguzo ilikuwa asilimia 73 kubwa kuliko mimea nje ya eneo la majaribio, ingawa takwimu hii ni ya kupotosha kwa mifano michache ya mtihani.

Hitimisho langu ni kwamba mimea ya majaribio ilionyesha kasi ya ukuaji wa kasi na ukubwa wa mmea wa terminal wakati umepandwa ndani ya mpangilio wa waya ulioelezwa, kwa sababu ya sababu ambayo haijaanzishwa au dhahiri kwa njia yoyote ya kawaida.

Msomaji anaweza kuona ni ya kuvutia kuzingatia yafuatayo:

Angle ya sehemu moja= 51.42857 degrees.
Nusu ya pembe hii = 25.71428 degrees
= 1542.857 minutes

Mzizi wa mraba wa thamani hii = 39.27922

Harmonic 3927922 Karibu Harmonize 3928371.

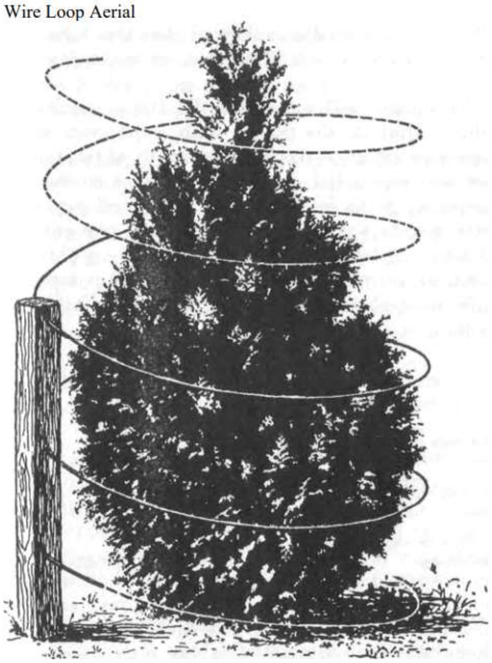
Harmonic 3928371 sawa na shamba la ardhi A shamba la ardhi la minus B.

Anga zote za ardhini zinazohusiana na kaskazini, kusini, mashariki au magharibi zinaonyesha sababu hii, au thamani inayohusiana na nusu moja au robo yake.

Mfululizo zaidi wa majaribio ulifanywa na Bwana Offwod kwa kutumia aina ya kitanzi cha waya angani ambayo inaweza kujengwa karibu na mmea mmoja au mti ili kukuza ukuaji. Nilikutana na kifaa hiki kabisa kwa nafasi wakati wa kuvinjari kupitia duka la vitabu huko Auckland. Kitabu hicho kiliitwa Siri ya Maisha na G. Lakhovsky, na kilichapishwa kwa mara ya kwanza mnamo 1935, baadaye kilichapishwa tena katika toleo lililorekebishwa kwa hisani ya Messrs Heinemann (Medical Books) Ltd - toleo la tatu 1963.

Nakala chache sana za kitabu zilipatikana ndani ya nchi kwa hivyo nilihisi bahati kupata moja kwa maktaba yangu inayokua kila wakati.

Wire Loop Aerial

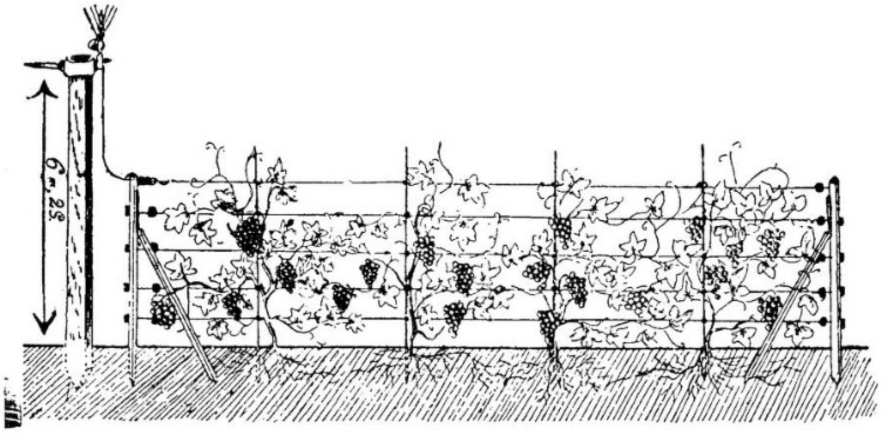


Hadi sasa, kazi ya Lakhovsky imepuuzwa kabisa na sayansi ya orthodox, naamini kwa hasara ya maelfu ya watu wagonjwa duniani leo.

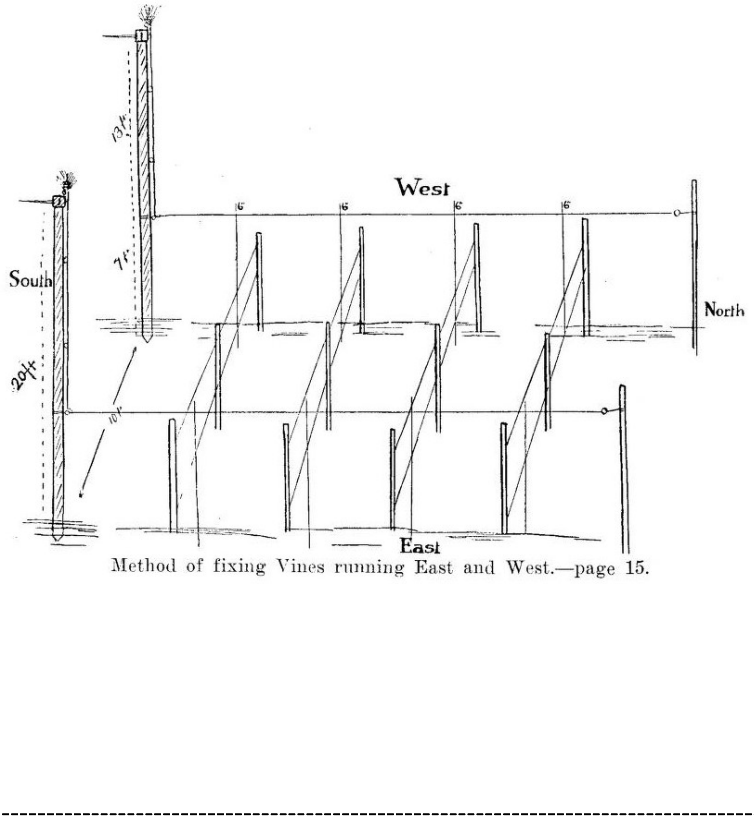
Utafiti wake na majaribio zilijengwa kwa msingi wa msingi kwamba "kila kiumbe hai hutoa mionzi." Hii ilikuwa imeungwa mkono katika siku za hivi karibuni na John Pfeiffer, Mmarekani anayefanya kazi katika uwanja wa astronomia ya redio. Kitabu chake, kiitwacho The Change Universe, kilichochapishwa mwaka 1956, kinasema kwa sehemu "kila mwanadamu ni msambazaji wa mawimbi ya redio, kituo cha utangazaji hai cha nguvu ya chini sana. Tumbo litatuma si tu mawimbi ya joto ya infrared, lakini wigo mzima wa mwanga, mionzi ya ultraviolet, X-rays, mawimbi ya redio na kadhalika. Bila shaka mionzi hii yote ni dhaifu sana na mawimbi ya redio ni kati ya dhaifu zaidi. Lakini anga ya futi hamsini ya maabara ya utafiti wa majini huko Washington, angani iliyojengwa kwa usahihi zaidi inaweza kuchukua ishara za redio zinazotoka tumboni mwako zaidi ya maili nne."

Kutoka: **IMPLOSION INSTEAD OF EXPLOSION <---** Mwanzo wa mwisho wa ukweli wa udanganyifu
Viktor Schauberger and his Discoveries
By Leopold Brandstatter
The Natural Solution to the Energy Problem Through Diamagnetism and Etheric
Forces, Second Edition, 1955

Mons. Justin Christofleau miundo;



Application to Vines on Wires.



Method of fixing Vines running East and West.—page 15.

Matokeo ya Victor Schauberger,

KIMETABOLIKI AU PARAMAGNETIC, KUNA TOFAUTI

Kwa msingi wa uchunguzi fulani muhimu wa kibinafsi, Faraday aliainisha metali kama paramagnetic na diamagnetic. Kinachoitwa sumaku - au bora - metali za paramagnetic zinavutiwa na sumaku na zinaonyesha mpangilio wa axial; wakati metali za diamagnetic zinarudishwa na sumaku na kuwasilisha mpangilio wa ikweta. Iligunduliwa kuwa kikundi cha paramagnetic hakina chuma tu, nickel na cobalt (ambaye mali yake ya sumaku imekuwa ikijulikana kwa muda mrefu), lakini pia manganese, chromium, cerium, titanium, palladium, platinum, osmium, na karibu aloi zote za ferrous. Kikundi cha diamagnetic kina bismuth ya kwanza, kisha antimony, zinki, risasi, shaba, fedha na dhahabu.

JINSI YA KUZALISHA NGUVU ZA DIAMAGNETIC

Katika uvumbuzi wa Viktor Schauberger diamagnetism ni jambo muhimu, au badala ya sababu ambayo hubadilisha picha nzima na kuileta katika misaada. Schauberger iligundua kuwa wakati hewa, ardhi, au maji yanafadhaika na kuganda (na mwanga, joto na hewa imetengwa) redio-kwa kawaida, yaani, kutoka nje ndani, vikosi vya diamagnetic vinazalishwa.

Hivyo diamagnetism na levitation kuelezea siri na asili ya chemchemi mlima. Harakati ya sayari, ond ya dunia hutoa maji ya tellurian chini ya uso wa dunia malipo hasi ya sumaku. Dunia (geosphere) yenyewe pia ni mbaya diamagnetic, wakati anga ni chanya diamagnetic. Kwa kuwa nguzo tofauti zinavutiwa, na kama nguzo zinarudishwa na kila mmoja, maji yaliyochajiwa vibaya yanarudishwa na dunia, yaani huinuliwa, wakati huo huo inavutiwa na anga. Hivyo, maji safi hupanda na kupanda juu ya milima, wakati maji mazuri zaidi yanarudishwa na hali nzuri na huja chini duniani kwa njia ya mvua, ili kupitia mchakato wake wa utakaso kwa mara nyingine tena.

Wakati dunia inapotokea pia kuwa na malipo mazuri kwa sababu ya jua kali, haiwezi tena kuvutia mvua, kama katika jangwa.

Watu wanaweza kujifunza tu kwa majaribio na makosa. Labda kosa tulilofanya katika kutumia njia ya moto bila ubaguzi ilikuwa muhimu kutufanya tutambue jinsi ilivyo hatari kubadili na kubadilisha mwendo wa msingi wa asili (moja iliyoonyeshwa na Nature kama njia yetu pekee ya maendeleo) na jinsi ilivyo makosa kutumia mwako na michakato mingine ya uharibifu ili kujenga ustaarabu. Hii inaelezea hali ya utamaduni wetu. Wakati watu wanatumia nguvu za excentric au centrifugal tu kwa madhumuni ya kiufundi wanaharibika kimaadili na kiroho.

Madokezo kwenye Spirals

KIBOKO LAZIMA KIWE NA USAWA

Ond ni chini ya bi-polarity. Kuna onds ya usawa na isiyo na maana, sawa na kwa melodies. ond ni sawa wakati radii yake inagawanyika kwa idadi nzima, yaani, 1 kwa coil ya kwanza, 1/2 katika coil ya pili, 1/3 katika coil ya tatu, nk.

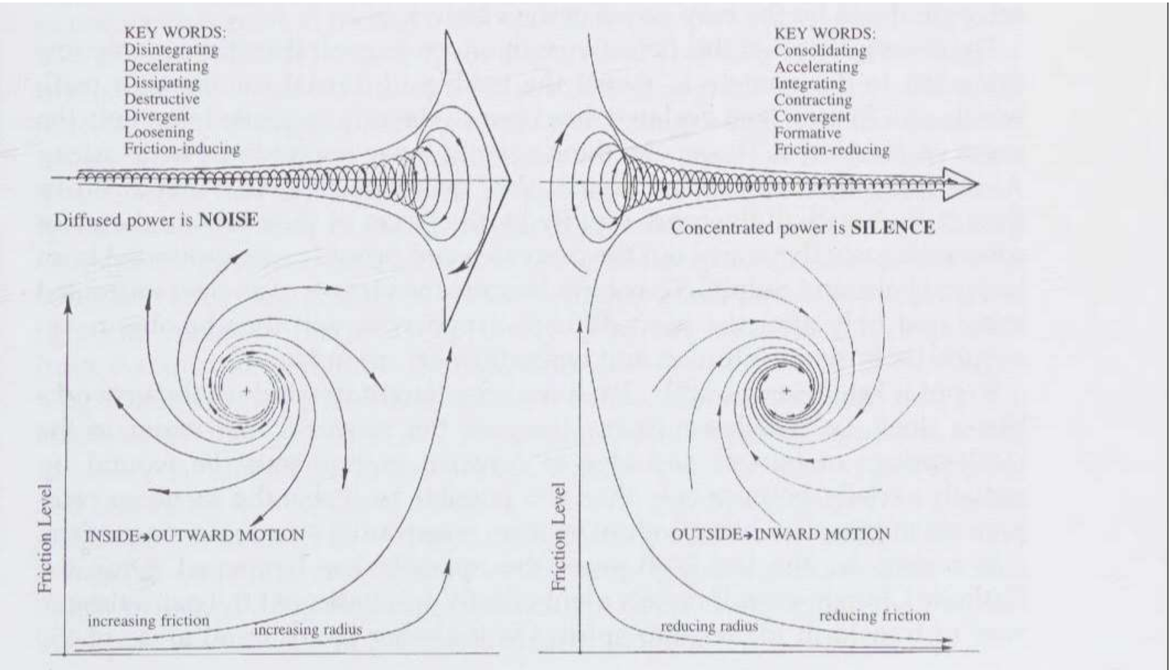
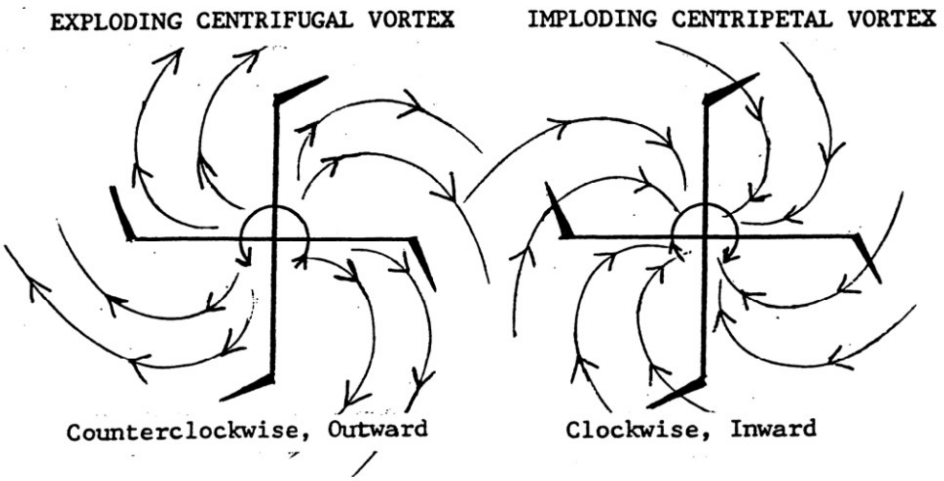


Fig. 14: Comparison between axial→radial (inside→outwards), radial→axial (outside→inwards) motion


EXPLODING CENTRIFUGAL VORTEX
IMPLODING CENTRIPETAL VORTEX
Counterclockwise, Outward
Clockwise, Inward

Jinsi gani wao * kuua Electroculture kutoka sekta, kilimo cha biashara na bustani ya makazi?

Rahisi, walipuuza sayansi yote ya anga, atheric na walitumia nadharia ya kawaida ya umeme kwa kutumia voltages za kawaida kupitia waya, ambazo hazikurutubisha udongo, au kwa vyovyote vile kuwakilisha sayansi au taratibu kazini. Na wakati nadharia ya sasa ya umeme haikuzalisha mavuno, viwanda na watu walipoteza hamu kama sayansi iliunganishwa na nadharia ya kawaida, umma haujui tofauti.

> *"Electroculture-GASSNER, kabla ya kuitwa Chuo Kikuu cha Montevideo, alikuwa ameanza uchunguzi juu ya athari za mikondo ya umeme, mara kwa mara na kubadilisha, ambayo, ingawa haijakamilika, ilikuwa na matokeo ya kuvutia.26 Sasa ya mara kwa mara kwa ujumla imeonekana kuwa na madhara (tazama matokeo yake na PLOWMAN'S juu ya galvanotropism alibainisha katika jarida hili). Kubadilika kwa sasa, wakati mabadiliko yalikuwa ya haraka ya kutosha, haikuwa na madhara kwa sababu haikutenda kabisa; haikupatikana faida, kama LOWENHERZ inavyoripoti.27 Inaua grubs na minyoo kwenye udongo wakati haidhuru mimea na kwa hivyo inaweza kuwa na manufaa kwa vitendo.*
>
> *Kwa mikondo iliyosababishwa kutoka kwa mashine ya msuguano, shayiri iliyochanganywa ilikua bora wakati wa umeme kwa masaa ya I3-I4 kila siku kutoka kwa sehemu za sindano juu ya mimea, ambayo inakubaliana na matokeo ya awali ya LEMSTROM (1890) na CHODAT (1892). Ukweli mmoja mashuhuri ulikuwa uvukizi mara tatu kutoka kwa mimea ya umeme, kama com ililingana na udhibiti. Tofauti kubwa zaidi, 6: Mimi, naonekana wakati sahani za porcelain zilizojazwa na maji zilibadilishwa kwa sufuria.-C. R. B."*

https://archive.org/details/botanicalgazett09orggoog/page/n397/mode/2up?q="Electroculture-GASSNER
Botanical Gazette 1907 pg.355

Uchafu kama huo ulitoka kwa Marekani Deparment of Agriculture
Department Bulletin No. 1379
Washington DC January 1926

> *"Neno 'electroculture' kama inavyotumika katika taarifa hii inahusu mazoea yaliyoundwa kuongeza ukuaji na mavuno ya mazao kupitia matibabu ya umeme, kama vile matengenezo ya malipo ya umeme kwenye mtandao juu ya mimea au mkondo wa umeme kupitia udongo ambao mimea inakua."*

Mstari wa ufunguzi unakuambia hapo hapo kwamba inarejelea nadharia ya kawaida ya umeme, hakuna chochote kwenye telluric, scalar, radiant, cosmic. Wanapenda kutumia takwimu kuuza uongo, na huu ni mfano mzuri tu wa wapi taratibu zinapunguzwa au hazipo, na lengo ni kugeuza umeme kuwa nadharia ya kawaida, kisha kupunguza hiyo. Ni uongo wa mtu wa majani, tengeneza kitu ambacho unaweza kushambulia na kufanya kazi hiyo, kupuuza asili ya kweli ya hoja, au uchunguzi.

**Wanarejelea vikosi vya ukarimu ambao hufanya kazi kuzuia afya ya binadamu na ustawi.*

Antennas ya Paramagnetic ya Asili

Wakati wa kutembea mbwa kando ya kitanda cha mkondo asubuhi hii, sikuweza kujizuia kuona ndogo zote zinazofikia angani katika miundo yao yote ya paramagnetic. Ushahidi uko karibu nasi, wakati mwingine tunapaswa tu kufanya wakati wa kuacha na kuangalia. Kwa nini sauti ya creek inauma? Kwa nini mbwa anayecheza kwenye mkondo huleta furaha? Jinsi gani dandelion ni moja ya mimea yenye lishe zaidi, lakini hakuna mtu anayekula? Fikiria shoving kwamba katika kinywa chako badala ya synthetically inayotokana na vitamini mdomo kawaida sehemu ya watu wengi kawaida. Vitamini inayotokana na vyanzo sawa vya mashirika yanayofanya kazi kukandamiza teknolojia na sumu ya binadamu na pharmacia yao yenye sumu.

Mfumo umegeuzwa, ukweli umegeuzwa, mantiki imegeuzwa, na njia pekee ya kutoka ni kurudi kwenye mizizi yetu, kurudi kwenye asili. Hii sio tu hatua ya uchaguzi, hii ni jinsi itakuwa bila kujali kufuata kwetu. Hawatafikia malengo yao ya kuchunga ubinadamu kuelekea kuwepo kwa Tron. Kwa nini unafikiri wanasukuma aina hizi za sinema katika maduka yao ya programu ya "kuingia". Orodha ya sinema ingezidi kila ukurasa na neno la hati hii, lakini kwangu na familia yangu itakuwa hapana. Hapana kwa siku ya hukumu, Hapana kwa AI, Hapana kwa NWO, Hapana kwa Mad Max, Hapana kwa Jumla Kumbuka, Hapana kwa Kukimbia Mtu, Hapana kwa yoyote ya ulimwengu huo bandia sci-fi uliodhoofisha ubinadamu kwa magoti ya watawala. Haitokei, sio kwenye saa yangu.

III.Rhetoric

Wafanyakazi wenzangu wa kukagua kazi yangu ni muda mrefu wamekwenda na wamekufa. Wadukuzi wachache ambao hutumia umeme wa umeme wanasahau sababu zake, na wanaweza tu kutuonyesha vifaa wanavyotumia. Mfumo wa sasa wa udhibiti kupitia wasomi hautabadilisha karne za udhibiti ili kuthibitisha kazi yake, na wana uhakika wa kuizika hata zaidi mara tu sophists zao za takwimu zinapata makosa yao ya ujamaa juu yake. Electroculture kuharibu itikadi ya ujamaa na ni uwezekano wa kuwa na bingwa kwa watu kama chanzo cha nishati ya bure kutoka ambapo faida haiwezi kugeuzwa. Kusubiri kwa wasomi, sayansi ya kisasa, pharmacia, kuthibitisha na kutoa mwanga juu ya teknolojia ambayo inaweza kulisha kwa urahisi na kuimarisha chattel yao haiwezekani. Ikiwa bado kuna watu kama hao ambao wanasubiri kwa kufuata maagizo ya mamlaka, basi naweza kusema kwa ujasiri mkubwa kwamba hakuna kitu katika hati hii kilicho na maana kwao.

Ulimwengu usioonekana karibu nasi unaathiri 99% ya Spectrum ya umeme, ulimwengu wa torus ya swirling na vortexes ya harakati za Masi zinazoongozwa kutoka kwa asili ndogo hadi asili kubwa zaidi. Kila kitu kiko nyuma katika ulimwengu huu wa ufisadi kama ilivyoonyeshwa wazi na teknolojia zilizokandamizwa ambazo zitawezesha maendeleo ya binadamu ya ubinafsi kutoka kwa mfano wa sasa wa kukusanya ambao tunatupa kwa kasi inayoongezeka. Ulimwengu tunaoishi leo unategemea zaidi oligarchy ya ushirika kwa kufanya maamuzi, ambayo daima hushinda uuzaji wa nguvu kwa njia ya matumizi ya uwongo.
Hizi ni ukweli. Walimu na abbots zilizoangaziwa katika makala hii, Christofleau, Lakhovsky, Schauberger, Cooke, Feynman ni mtu wa heshima, watu mashuhuri, wanaojulikana kuwa wameeneza ujumbe wa maendeleo ya kiufundi kwa wanaume wenzao. Wanaume ambao walichukua muda wa kufanya dunia yetu mahali bora, kwa kuhakikisha maji, chakula, nishati, afya, uhuru wa kusafiri, inaweza kuwa inapatikana kwa mtu yeyote, mahali popote, kwa gharama kidogo bila gharama.

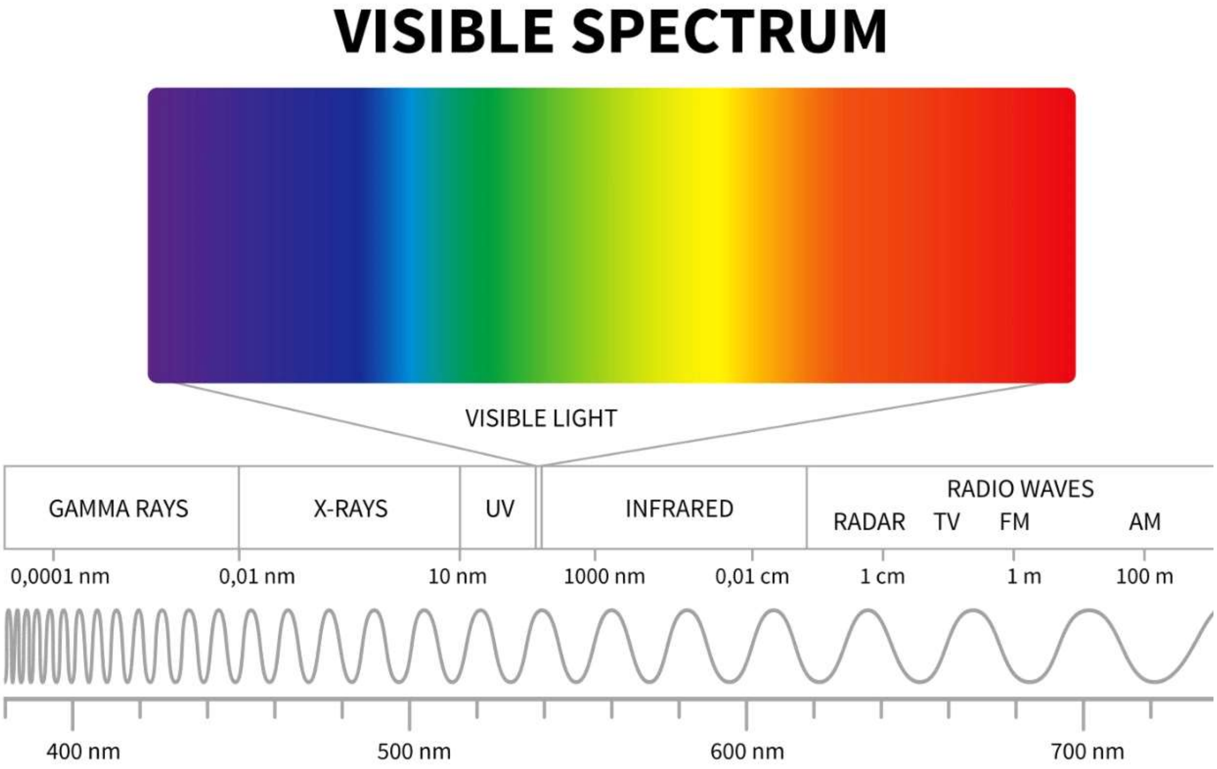
Hii ni ahadi kwamba mfumo wa umeme wa Paramagnetic Antenna (PAE) unaweza kusaidia kuendelea. Kwa kiambatisho cha Vifaa vya Nishati ya Msingi [Hexbeamer], wanadamu wanaweza kuchaji tena na kuunganisha uhai wao, na wakati teknolojia hii ni ya juu, Nishati ya Msingi itawezesha kizazi kipya cha vifaa vilivyoundwa kuwepo kwa ulinganifu na dunia, ambayo itatoa mwanga, usafirishaji, na kama ilivyo kwa mfumo wa Antenna ya Paramagnetic, mbolea udongo kukua mazao magumu bila kemikali au uharibifu wa permaculture.

Nini macho yetu kuruhusu sisi kutambua tu kufanya juu 1% ya dunia karibu nasi. Hebu tuangalie wazo la jambo linaloonekana lililoelezwa na fizikia inayojulikana. Sisi ni kama samaki kuogelea katika bahari ya mawimbi ya umeme kama inavyowakilishwa na wigo wa chini. Teknolojia iliyowasilishwa hapa ni katika usawa kamili na michakato ya asili ambayo inafuata na kuwianisha na kitanzi cha kulisha cha Dunia. Kutumia teknolojia za usawa na taka 0, kuruhusu matumizi ya kila mwaka bila matumizi ya mbolea za kemikali, dawa za wadudu, au DNA kuharibu mbegu zilizobadilishwa maumbile.

Kutoka kwa wakulima kusimama hatua:

upandaji mdogo & mavuno makubwa = kazi kidogo, chakula zaidi = mkulima mwenye furaha

Hii ni formula wakulima, na wakulima haja ya kubuni karibu wakati kutumia njia zisizo za uharibifu wa kilimo.



Unaona kwamba kidogo kidogo sliver ya mwanga inayoonekana?

Huu ndio ukweli wetu.

Fikiria kile ambacho huwezi kuona. Naam ni huko bila kujali ukosefu wetu wa mawazo. Na sasa tuna njia za kuingia na kufaidika kutoka.

Makala hii inatosha katika abstract yangu kama ilivyoelezwa awali kwa hati hii, hatua inayofuata ni kuanza mchakato wa kutumia muda wa michoro na nyaraka zinazohitajika kwa patent. Natumai ulifurahia nakala hii na kurudi kwa zaidi kwenye blogu yangu teamelectroculture.com ambapo ninaahidi kuendelea kutukana mamlaka, kufichua uwongo na kurudi kwa Mungu, malipo ya chanzo cha ubunifu wa kila kitu.

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Rediscovering nature’s secret force of growth: How to farm properly as god intended

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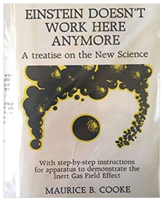
EINSTEIN DOESN'T WORK HERE ANYMORE

A treatise on the New Science

With step-by-step instructions for apparatus to demonstrate the Inert Gas Field Effect

MAURICE B. COOKE

Einstein Doesn't Work Here Anymore: A Treatise on the New Science
Maurice B. Cooke 1993

Einstein haifanyi kazi hapa tena ni moja ya vitabu visivyo vya kawaida ambavyo utawahi kusoma. Ni matunda ya miaka saba ya utafiti na uchunguzi wa kinadharia na mwandishi na wenzake wawili - ambao wote wamehusika katika matawi mbalimbali ya fizikia kwa maisha yao mengi ya watu wazima. Mawazo yaliyotolewa hapa yanawakilisha kuondoka kwa nguvu kutoka kwa mawazo ya kawaida, na itaondoa jinsi ya maandamano kutoka kwa 'mlinzi wa zamani' wa uanzishwaji wa kisayansi. Kama si kwa ajili ya ukweli kwamba majaribio ilivyoelezwa katika kitabu hiki kuonyesha matokeo ambayo tu haiwezi kuelezewa na sayansi ya orthodox, nyenzo kinadharia inaweza vizuri kuwa kufukuzwa na mtu yeyote na modicum ya elimu ya kisayansi. Hata hivyo majaribio ni ya kweli, na yanaweza kurudiwa kwa urahisi kwa gharama ndogo. Katika kurasa hizi utapata sio tu hoja ya kinadharia ambayo ilisababisha hitimisho la mwandishi lisilo la kawaida, lakini maagizo ya kina, ya hatua kwa hatua ya kujenga vifaa rahisi ili kuonyesha uwepo wa mashamba ya nishati ya gesi. Theluthi ya mwisho ya kitabu hicho inafupisha historia kadhaa za kesi za matibabu ambazo mashamba ya gesi ya inert yalitumika - na matokeo ya kushangaza na ya kutia moyo. Kitabu hiki si kwa kila mtu. Rufaa yake ni kwa wale ambao hawajisikii kutishiwa na dhana mpya, na ambao wanaweza kutafakari uharibifu wa mfumo mzima wa kinadharia na kuona tu msisimko wa kuendeleza hatua nyingine karibu na ukweli wa mwisho wa ukweli.

vi)

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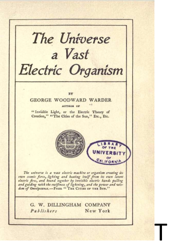
The Universe a Vast Electric Organism

BY

GEORGE WOODWARD WARDER

AUTHOR OF

"Invisible Light, or the Electric Theory of Creation," "The Cities of the Sun," Etc., Etc.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA

The universe is a vast electric machine or organism creating its own cosmic force, lighting and heating itself from its own latent electric fires, and bound together by invisible electric bands pulling and guiding with the swiftness of lightning, and the power and wisdom of Omnipotence.—From "THE CITIES OF THE SUN."

G. W. DILLINGHAM COMPANY

Publishers New York

The Universe a Vast Electric Organism

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